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A strategic decision matrix for analyzing food service operations at Air Force Bases

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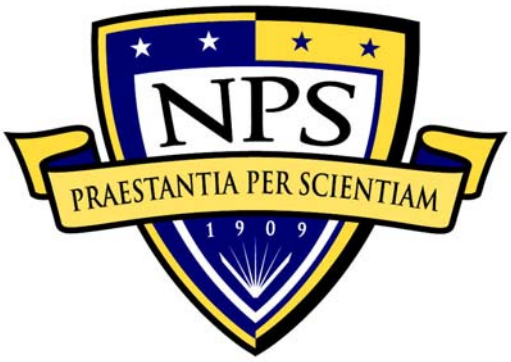

NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

MBA PROFESSIONAL REPORT

A Strategic Decision Matrix for Analyzing Food Service Operations at Air Force Bases

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December 2006

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For years, Services organizations have operated dining facilities with little change to strategic direction for the type of operation they should implement. Contracts, regardless of type, often run on auto pilot. Organizations renew the contracts when their option years run out with little change or modification to the contract. The only thing that seems to change is the ever increasing price of the contract and perhaps the contractor. This analysis will attempt to provide a framework for change that provides a tool for decision makers to utilize when faced with a feeding contract that has reached the end of its service life.

Through our analysis, we will develop a "decision matrix to select a food service system for Air Force bases." The decision matrix will help answer the question of which food service operation should be implemented at any AFB. The matrix will include criteria to evaluate the options while guiding the type of contract or in-house service that best meets the base requirement. In addition, to be of use to any Services organization at any AFB, it will be a decision tool that any evaluator may adapt to their specific requirements and constraints.

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A STRATEGIC DECISION MATRIX FOR ANALYZING FOOD SERVICE OPERATIONS AT AIR FORCE BASES

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Submitted in partial fulfillment of the requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

NAVAL POSTGRADUATE SCHOOL
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A STRATEGIC DECISION MODEL FOR ANALYZING FOOD SERVICE OPERATIONS AT AIR FORCE BASES

ABSTRACT

For years, Services organizations have operated dining facilities with little change to strategic direction for the type of operation they should implement. Contracts, regardless of type, often run on auto pilot. Organizations renew the contracts when their option years run out with little change or modification to the contract. The only thing that seems to change is the ever increasing price of the contract and perhaps the contractor. This analysis will attempt to provide a framework for change that provides a tool for decision makers to utilize when faced with a feeding contract that has reached the end of its service life.

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EXECUTIVE SUMMARY

For years, Services organizations have operated dining facilities with little change to strategic direction for the type of operation they should implement. Contracts, regardless of type, often run on auto pilot. Organizations renew the contracts when their option years run out with little change or modification to the contract. The only thing that seems to change is the ever increasing price of the contract and perhaps the contractor. This analysis will attempt to provide a framework for change that provides a tool for decision makers to utilize when faced with a feeding contract that has reached the end of its service life.

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I. INTRODUCTION

A valued benefit the government provides to any new enlisted troop is food and shelter. Since the beginning of the Air Force, Services organizations, in some form or another, have provided food service operations for military troops through direct support, contracted support or a combination of the two. Air Force Services provides technical oversight of 296 appropriated fund (APF) dining facilities, meaning Congress provides the funds through Appropriation Acts that are supported by tax payer dollars. These dining facilities serve 43.5 million meals annually[1]. We have great managers developing customer support strategies at a tactical level to provide the best service possible to our enlisted military men and women within our appropriated fund dining facilities. However, where we fail as an organization is in determining the strategic direction for the type of food service system in operation at any given base. That is, what type of operation should be implemented to meet the overarching strategic direction of providing troops with three square meals a day? Instead of thinking strategically about the type of food service support to pursue, we simply focus attention on tactical decisions and submit paperwork to renew expiring contracts without evaluating the need for change. We fail to see that the type of operation we put in place affects the mission as well.

Congress supports the feeding of enlisted troops through APF dining facilities and provides appropriations to implement food service programs and subsistence. Air Force Policy Directive 34-4, *Food Service*, states "the Office of the Secretary of the Air Force and Headquarters US Air Force (HQ USAF) are responsible for policy, resource advocacy, and oversight of the Air Force Food Service Program."[2] The policy directive further states,

> Installation commanders are responsible for establishing quality food service programs for authorized patrons, maintaining food cost within

[1] Air Force Services Agency (October 2005). *Fact Sheet.* Retrieved November 19, 2006, from http://www.af.mil/factsheets/factsheet_print.asp?fsID=154&page=1.

[2] HQ USAF/MWP (December 27, 1993). *Air Force Policy Directive 34-4, Food Service*. Retrieved November 19, 2006, from http://www.e-publishing.af.mil/pubfiles/af/34/afpd34-4/afpd34-4.pdf.

> plus or minus 2 percent of monthly earned income, monitoring full food service and food service attendant contracts, identifying requirements and executing their programs to comply with this policy.

However, it is the Services Squadron Commander who is delegated the responsibility of meeting the food service needs of the wing. Therefore, the level of analysis for our purposes is at the squadron level.

It is important to note that a Services squadron is unique because of its sources of funding. Not only does Congress provide APF dollars for operational missions, but the squadron is authorized to generate Non-Appropriated Fund (NAF) dollars as well. NAF dollars are funds that are generated by an operation through fees and charges and are not supplemented by tax payers' dollars. Each Services organization manages a Morale, Welfare and Recreations (MWR) fund comprised of business operations such as bowling centers, golf courses, officer clubs and enlisted clubs. These business activities are not typically supported with APFs and therefore they must generate funds through fees and charges to support the operation. In addition, the squadron is also responsible for a human resource office that hires civilians to staff the operations. These employees are not government civil service employees. Their salaries are paid for by the NAFs generated within the operations.

A Services squadron is responsible for implementing the food service program, but reports to the Mission Support Group Commander and the Wing Commander on all issues related to the operational mission of the wing and ultimately reports to HQ USAF. Although the overall strategic direction is given by the Secretary of the Air Force, there is significant latitude in achieving that direction. Each installation must best determine their course of action based on their specific requirements and constraints.

This analysis will attempt to provide a framework for change that provides a tool for decision makers to utilize when faced with a feeding contract that has reached the end of its service life. This chapter will identify the research question, provide options available for feeding operations, and state the basic assumptions used in developing the strategic management tool.

A. RESEARCH QUESTION

In order to develop a framework for analysis, the research question must be identified to help strategically focus on the issue. In addition, to be of use to any Services organization at any Air Force Base (AFB), the question needs to be broad enough so it may be a decision tool any evaluator may adapt to their specific requirements and constraints. The basic research question is, "How does an AFB choose the best food service operation to implement based on a strategic framework of analysis?" To answer this question, we will develop a matrix for the decision maker to use as a strategic guide to select a food service system for any air force base. This matrix will allow the user to score and weigh the available options and select the best option for their needs.

B. OPTIONS

By focusing on the technology of work surrounding the Air Force strategic direction of providing food service support, five potential options were identified and legitimized to meet that objective. These options are; a full food service APF contract, a mess attendant APF contract, a full food service NAF memorandum of agreement (MOA), a mess attendant NAF MOA, and closing dining operations entirely.

1. Full Food Service APF Contract

This type of contract is funded by wing operational and maintenance (O&M) APF dollars and is awarded to a commercial food service operation. O&M dollars are APFs used to support a base's day-to-day mission. The food service operation is part of that mission and the contract is paid with these dollars. With this contract, civilian contract personnel manage all dining facility operations including the administrative staff, mess attendant staff, and cooking staff. The administrative staff completes the ordering of food, supplies, completes dining facility reporting instructions and other similar administrative matters. The mess attendant staff performs functions such as food preparation which includes cleaning and chopping of ingredients for use by the cooks. They also are responsible for preparing food lines, serving customers, operating cash registers, bussing tables, washing dishes, and overall cleaning of the facility. The cooks define the required ingredients for all entrees and combine all of the prepared ingredients for preparation of the meal. Oversight is usually provided by a military

Services specialist assigned as a quality assurance evaluator to ensure the terms of the contract are indeed being accomplished by the contractor. This type of contract is very costly and is usually found at bases with a small number of military Services squadron personnel.

2. Mess Attendant APF Contract

This type of contract is also a commercial food service operation but only performs the mess attendant functions. Services squadron military personnel manage the administration and operation of the facility and conduct all the cooking and baking. A mess attendant contract is funded by wing O&M APF dollars and is the standard contract for most dining facilities in the Air Force. Military Services personnel must remain proficient with cooking operations to meet deployment readiness requirements. A mess attendant contract meets this training requirement and is therefore the preferred means of providing dining facility support.

3. Full Service NAF MOA

A full service NAF MOA is the same as a full service APF contract except that instead of contracting with a civilian contractor to provide the service, the installation contracts with the Services squadron through a MOA. Wing O&M APF dollars still fund the MOA but the dollars are paid to the Services MWR fund. The Services Human Resources Office (HRO) hires NAF civilian employees to provide the service. These employees are not contract employees and fall under the human resource management of the Services squadron. Hence, the operation stays in-house and costs are cut significantly because unlike the contractor, the MWR fund does not operate for profit. AF instruction requires the fund to break even which includes the cost of recapitalization of equipment, financial and HRO services. The manager of the dining facility in this scenario would be a military food service specialist who would also perform the duties that a quality assurance evaluator would perform under a civilian contract. At this time, there are no dining facilities utilizing this option.

4. Mess Attendant NAF MOA

A mess attendant NAF MOA also uses NAF civilian employees but only provides the mess attendant functions of the dining facility. Operations, administration, cooking and baking remain a function of the military food service specialists. A mess

attendant NAF MOA is also funded with wing O&M APF dollars that are paid to the MWR fund. Currently, there are three AFBs utilizing this option.

5. Close Dining Operations

Closing dining operations has not been a viable strategic option for many years because enlisted troops living in dormitories did not have cooking facilities to provide meals for themselves. APF dining facilities were the answer to that problem. Recently, the Air Force implemented a new dormitory construction design known as one-plus-one that provides a shared kitchen area between every two dorm residents. This opens the door to the possibility of closing a food service operation on an AFB.

In addition, Air Force policy is to provide meals free of charge in the dining facility for dorm residents. Airmen living in dormitories are not provided basic allowance for subsistence (BAS) which is an additional pay allowance. Based on the comparison of the number of enlisted personnel on Essential Station Mess (meal card) to the number of meals served by headcount, a small percentage of those enlisted members able to eat in an APF dining facility free of charge actually eat there[3]. With kitchens in the dormitories now, we think that percentage will decrease even more. Despite not receiving BAS, many airmen are electing to pay for food out of their pocket in order to purchase and prepare it themselves or dine out at fast food or commercial eateries. This reduced participation makes the cost of operating the dining facility even greater on a per plate basis.

It is now feasible for a Services organization to consider closing the APF food operation if the base population is not being serviced and there are a small number of Services squadron enlisted troops requiring training for readiness requirements. If the cost of providing BAS to the dorm residents is less than the cost of operating the APF dining facility, it may make sense to close the operation.

C. ASSUMPTIONS

Services use of NAF MOAs is an alternative that came into practice in 2000 as a result of the outsourcing initiative that took military services and converted them to

[3] Based on anecdotal evidence provided by Major Beth Demmons who has managed AF dining facilities for 14 years.

contract operations to save AF dollars. Services participated in this conversion by allowing the AF to outsource to our NAF operations instead of an outside contractor. This allows the operation to stay in-house and yet still meet the Congressional goals of outsourcing. Although authorized, as discussed in Chapter II, contractors are pursuing legal action to prevent the use of the MOAs since they can no longer compete for the opportunity to provide service as a result of the in-house option. We chose to ignore these legal proceedings because at this time, full food service and mess attendant NAF MOAs are legal options. We assume the legal proceedings will clarify the Congressional language and prevent future challenges by contractors. Therefore, for purposes of this project, we assume the full food service and mess attendant NAF MOAs will continue to be viable options.

In addition, we assume no base-level manpower changes will occur when changing from one option to another. Due to small numbers of services personnel, the services headquarters streamlined our military manpower and assigned personnel to only those bases which had a requirement for deployment of services troops. As a result, two structures were created; Services Squadrons and Services Divisions. Services Squadrons have a large number of Services enlisted personnel to meet deployment requirements and therefore require training within dining facilities to meet readiness needs. Civilian employees run Services Divisions and provide services support at those bases that do not deploy services personnel such as Air, Education and Training Command bases. Military personnel assigned to Divisions are small in number and are not deployed as food service specialists so the training component is not critical. As a result of this strategic alignment, Headquarters AF Services would direct any change to manpower. Therefore, for the scope of this project we assume that military manpower remains constant and does not monetarily impact the outcome.

D. CONCLUSION

Although the decision matrix will seem like a simplified analysis to determine the best course of action to implement a food service operation, it must be leveraged with a thorough understanding of strategic management in its entirety. Conflicting stakeholder interests, economic objectives and political agendas force decision makers

in a military environment to make trade-offs and require a concerted effort to build consensus about the organizations purpose and strategic direction. Making a decision as to what food service operation to implement is only one small facet of the system. Forethought must be given to the strategic direction that is provided in support of the organization's mission and/or vision, what type of organizational design will be instituted as a result of the change in the technology of work, and how evaluations will be conducted to assess if the organization is meeting its strategic objective through outputs and outcomes. The decision matrix is simply a tool to assist decision makers evaluate the strategic direction of the food service operation and help them realize that mission changes occurring over the five year life of a contract may lead to an alternative option.

With the research question identified and the options available for food service discussed, Chapter II will discuss why these options are valid. Chapter II will review the instructions and laws which substantiate the validity of the five options within the military environment and also provide the strategic management framework and methodology used to develop the matrix. This provides the context for the creation of the matrix itself and further chapters will outline the criteria used to evaluate the options, the development of the matrix and how to use the matrix with the strategic management framework in mind. Finally, the matrix will be utilized to determine the best food service operation for use at Grand Forks AFB (GFAFB), and the results of this determination will be compared with GFAFB's actual strategic decision to implement a mess attendant NAF MOA. While not definitive, this pilot test using data from GFAFB will provide initial feedback on the utility of the matrix.

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II. RESEARCH AND METHODOLOGY

Researchers have done little study in the field of military food service operations. Though the research in this particular field is minimal, a wealth of research surrounds strategic decision making which forms the foundation of this decision matrix. Therefore, for the purposes of this study, this chapter will focus on three objectives. The first is validating the five food service options available to the decision maker by presenting the policies, directives and laws that permit their implementation. The second objective is to identify a strategic management framework for the decision maker to utilize when implementing the matrix. Finally, this chapter will outline the methodology used in developing the matrix design.

A. VALIDATION OF OPTIONS

The options used in the decision matrix are; a full food service APF contract, a mess attendant APF contract, a full food service NAF MOA, a mess attendant NAF MOA, and closing dining operations entirely.

APF contracts for both full food service and mess attendant service are provided by Congress. Specific guidance on procurement of services is provided under Title 10, United States Code which allows Congress to provide appropriated dollars for food service operations through the fiscal Authorization and Appropriation Acts. Further guidance on food service is provided in DoD Instruction 1338.10, Department of Defense Food Service Program. These are the primary documents that allow for contracting of food service but there are several others that provide guidance on procurement.

The Federal Acquisition Regulation (FAR) provides procurement guidance to all Federal executive agencies acquiring supplies and services with appropriated funds. Effective April 1, 1984, the FAR provides codified and uniform policies and procedures for all Federal executive agencies. The Administrator of General Services, the Secretary of Defense, and the Administrator for the National Aeronautics and Space

Administration, manage the FAR system. The Office of Federal Procurement Policy Act of 1974 (Pub. L. 93-400), as amended by Pub. L. 96-83 provided the codified basis for establishing the FAR system[4].

When utilizing an APF full food service contract or a mess attendant contract, the only individual authorized to award a contract is the contracting officer. In this process, the Services Squadron must work jointly with the Contracting Squadron to develop a performance based work statement defining the requirements of the service needed. The contracting officer will solicit and award a contract in compliance with mandatory publications.

On the other hand, a NAF MOA for either a full food service operation or a mess attendant operation does not require Contracting Squadron involvement. Since the MOA is funded by APFs, the same acts, codes, and instructions as stated above apply and authorize the use of this option. The main difference between the MOA and the contract is that the government is contracting with itself versus an outside commercial entity. Public Law and Air Force directives authorize NAF-Instrumentalities (NAFIs) to enter into agreements with other parts of the Federal Government to provide goods or services. Below are excerpts from the most pertinent guidance[5]:

1. Public Law (10 USC 2482a) states:

> An agency or instrumentality of the Department of Defense that supports the operation of the exchange system, or the operation of a morale, welfare, and recreation system, of the Department of Defense may enter into a contract or other agreement with another element of the Department of Defense or with another Federal department, agency, or instrumentality to provide or obtain goods and services beneficial to the

[4] Contracting Laboratory Hill AFB (November 4, 2004). *FARSite*. Retrieved November 19, 2006, from http://farsite.hill.af.mil/vffara.htm.

[5] HQ AFSVA (nd). *MOA Guidebook.* Retrieved November 19, 2006, from https://www-r.afsv.af.mil.

> efficient management and operation of the exchange system or that morale, welfare, and recreation system.[6]

This paragraph provides the legal basis for a Services organization to provide services to an AFB that would otherwise be contracted. It simply means that a wing commander may enter into a MOA with the Services organization's NAFI.

2. AFI 38-203, Commercial Activities Program, 1 Aug 00**:**

> AF may enter into intra-service agreements with other DoD components or NAF instrumentalities (see 10 USC 2482a) without conducting a cost comparison.[7]

This instruction provides further guidance for services organizations when entering into a NAF MOA and excludes the need for a cost comparison to a contracted operation.

3. AFMAN 64-302, *NAF Contracting Procedures*, para 11.13., 3 Nov 00 states:

> DoD agencies and NAFIs may enter into contracts or other agreements for goods or services when the contract or agreement benefits both parties. The NAFI can only enter into such a contract or agreement for goods or services related to its authorized activity/business. The benefits to each party should be documented for the contract file.[8]

Food service is an authorized mission of a Services organization and it is as such that an agreement is made between the wing and the NAFI. The benefit to the wing is usually monetary in nature and the NAFI benefits by maintaining the operation in-house.

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[6] *10 USC 147 Commissaries and Exchanges and Other Morale, Welfare, and Recreation Activities* (January 3, 2005). Retrieved October 15, 2006 from http://uscode.house.gov/download/pls/10C147.txt.

[7] HQ USAF/XPMR (July 19, 2001). *AF Instruction 38-203, Commercial Activities Program.* Retrieved October 15, 2006 from http://www.e-publishing.af.mil/pubfiles/af/38/afi38-203/afi38-203.pdf.

[8] SAF/AQCO (November 3, 2000). *AF Manual 64-302, NAF Contracting Procedures*. Retrieved October 15, 2006 from http://www.e-publishing.af.mil/pubfiles/af/64/afman64-302/afman64-302.pdf.

4. HQ USAF/XPM Memo, Strategic Sourcing of Services Functions (Other than Resource Management), 15 Aug 00**:**

> The NAFI MOA may be used for any Services function eligible for Strategic Sourcing when (1) it makes good business sense and (2) is beneficial to the NAFI, the appropriated (APF) activity, and to our AF troops.[9]

This XPM memorandum identified the ability to consider the NAF MOA as a mode of Strategic Sourcing (outsourcing). These four references build the foundation for use of NAF MOAs. Although Public Law has always allowed for this type of operation, Services did not enter into these agreements until 2000. The policy directives and memos outlined in references two through four provide direction and authority to Services organizations to enter into these type of agreements.

Although not an official contract, the MOA is a legally binding document. As mentioned, the Contracting Squadron is not involved in creating the MOA. The Installation Commander, the Services Resource Management Flight Chief and the Wing Finance Officer sign the MOA making it a binding agreement. Since the MOA is an agreement between two government agencies, it is not covered by the FAR or by NAF contracting rules. According to *MOA Benefits and Pitfalls* there are some pros and cons which must be considered when evaluating these two options[10].

1. Pros

a. The Services and installation commanders maintain control of the activity.

b. Efficiencies may be gained resulting in significant cost savings to APFs.

c. Savings may be applied to mandated MAJCOM reduction targets.

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[9] HQ USAF/XPM Memo (15 Aug 2000). Retrieved November 19, 2006, from https://www-r.afsv.af.mil.

[10] HQ AFSV/SVI (nd). *MOA Benefits and Pitfalls.* Retrieved November 19, 2006, from https://www-r.afsv.af.mil.

d. NAFI MOAs are more flexible and implementation is faster than a commercial contract.

e. NAF personnel and human resource management processes are flexible.

f. Increased activity flexibility can enhance customer service.

g. It benefits both APF side and NAF side.

2. Cons

a. If all costs (e.g., administrative, accounting, TDY, PCS, retirement, equipment, supplies, and personnel costs) are not accounted for, the NAFI can lose money when providing agreed upon services violating Air Force policy outlined in AFMAN 64-302.

b. If APF support, in the form of the MOA payment or BOS, is reduced or cut, services must be reduced or cut accordingly or the MOA must be canceled or revised.

c. If customer service, hours of operation, or product quality drop below MOA identified levels, the MOA must be amended, terminated or come back into line with the standards all parties agreed to.

d. The MOA must not be used as a personnel management tool (e.g., to replace unproductive employees). MOAs should not be personality driven but rather cost, process and efficiency driven.

The final option of closing the facility is authorized by providing compensation for meals if a dining facility is not available. DoD Instruction 1338.10 states that "military enlisted members are entitled to a ration for each day on active duty, except when they are entitled to a basic allowance for subsistence or per diem instead of subsistence."[11] In addition, DoD Directive, 1418.4 BAS Policy, para 4.6.3.1 states,

[11] Department of Defense (June 5, 1991). DoD Instruction 1338.10, *Department of Defense Food Service Program*. Retrieved November 20, 2006, from http://www.dtic.mil/whs/directives/corres/pdf/i133810_060591/i133810p.pdf.

"The Rations In Kind Not Available (RIKNA) BAS rate is authorized for enlisted members, not on leave, while on duty at a permanent station where a Government mess is not available or where it has been determined that it is impractical for the Government to make meals available."[12]

These options are legal and available to the decision maker and meet the mission of providing food service to our AF troops. However, without a strategic framework for choosing the right option for the installation, selection of a food service option is merely a guess which may not provide the optimal solution for meeting the squadron, base or Air Force needs.

B. STRATEGIC MANAGEMENT FRAMEWORK

Strategy in any decision making process is paramount. It provides the map for navigating through challenging environments so mangers can solve complex problems involving their organizations, technologies, and often limited resources[13]. Strategy is derived from the strategic planning process, which is "a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why it does it."[14] A good strategy must have established and tested means by which to apply resources to achieve desired objectives or goals. This link between strategy and resources is critical to the success of a food management program. H. Yeager in his article, "Towards a Theory of Strategy," stated:

> A good strategy must strive to be efficient. Not only must ends be related to means; they also must be appropriate and relevant to the objective. Strategists speak of the need for a balance between the objectives, the methods employed to pursue the objectives, and the resources available. Strategy must avoid means that demand resources

[12] Department of Defense (October 6, 2003). *DoD Directive, 1418.5, Basic Allowance for Subsistence (BAS) Policy*. Retrieved November 20, 2006 from http://www.dtic.mil/whs/directives/corres/pdf/d14185_100603/d14185p.pdf.

[13] Lewis, T.G. (2004). *Critical Infrastructure Protection in Homeland Security: Defending a Networked Nation*, Volume 1. Monterey: Wiley-Interscience.

[14] Bryson, J.M. (2004). *Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement*, 3rd Edition. San Francisco: Jossey-Bass.

> in excess of those available. Conversely, merely because resources are available, they need not be employed. [15]

With this in mind, how do we step through the decision making process? First, we must identify a framework for analyzing the organization. For our purposes, we choose to identify and look at four major components of strategic management: environmental assessment, strategic direction, strategic implementation and strategic evaluation of outputs and outcomes[16]:

1. Environmental Assessment

It is necessary for decision makers to conduct an environmental assessment prior to using the decision matrix. This assessment must not only look at the general and industry environments but most importantly the internal environment. If an operation has been a contracted operation for 30 years, changing to a NAF MOA will seem drastic to the internal environment stakeholders. By thoroughly assessing the internal environment, one can prepare their staff and contract employees for the change on the horizon. In addition, one must conduct a thorough external environmental analysis. According to M.E. Porter's external environmental analysis model the state of competition in an industry depends on five basic forces: rivalry, threat of new entrants, bargaining power of suppliers, bargaining power of buyers, and threat of substitute products or services[17]. With both internal and external analysis complete, education and information become paramount to success. Through these assessments, managers are better prepared to answer questions from those contractors no longer afforded the opportunity to make money from food service operations on an installation if a NAF MOA is implemented**.**

2. Strategic Direction

It is also imperative when using this matrix that the decision maker understands the stakeholders that affect the decision. It is important not only to decide on a

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[15] H. Richard Yarger, "Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model", 1997.

[16] Nancy Roberts, PhD, Professor of Strategic Management. "Strategic Management Course Map", Mar 06.

[17] Porter, M.E. (1979). How Competitive Forces Shape Strategy *Harvard Business Review Publication*, March-April 1979, pg. 6.

direction to pursue, but also to look at the levels of stakeholder involvement and how those stakeholders may affect the success of the implementation. At some bases, the stakeholders are not just leadership, the Services squadron and the military customers, but they may also include retirees, parents of military members, young enlisted troops with families authorized to use the facility, contractors and contract employees.

3. Strategic Implementation

Within this framework, it is imperative to recognize that when altering the technology of work of any organization, one must understand that there is a direct impact to the outputs and outcomes of that organization. If the technology is not driven with the strategic direction and expected outputs and outcomes in mind there is little opportunity for success.

4. Strategic Evaluation

Strategic evaluation should not be the last item on the check list. Instead, the decision maker should create it during the process of determining the direction and implementation of the strategy. When developing the implementation plan, it is paramount for the team to define the process for evaluation as well. This evaluation directly links implementation to the results of the strategic direction setting. The desired organizational outputs and outcomes must be defined and it must be determined how measurement of those outputs and outcomes will be completed.

C. MODEL DEVELOPMENT

In development of the decision matrix, we looked to existing research to guide our model. Understanding the task, we knew our model must include components of objective forecasting through a systematic approach, the ability to mesh competing requirements and demands from multiple stake holders, and the ability to capture the complexity of the political environment in which the decision maker must operate. For our purposes in this section, the decision maker is the services squadron commander, who must use the model to develop viable options to take to wing leadership. There are several models we could implement, but for our purposes we focused on three distinct models that could potentially meet our needs; the Model-Based Vulnerability Analysis (MBVA), the Rational Planning Model, and the Political Planning Model.

1. Model Based Vulnerability Analysis (MBVA)

MBVA is a systematic approach to allocating resources that attempts to derive an outcome or strategic direction through objective means.[18] It is based on quantitative science, and objectively quantifies the inputs of the model to appropriately allocate resources within budget constraints. MBVA techniques make it theoretically possible to create a predictive model to forecast the probability of success or failure of a course of action. However, when stepping through this model, it did not fit our needs because many of the decisions surrounding our options such as customer desire, leadership influence, and politics are based strongly on subjective criteria without hard statistics or numbers to provide a straightforward objective analysis.

2. Rational Planning Model

The rational planning model attempts to model in a social science framework and sets the stage by determining the objectives or strategic direction first and then focuses on developing the strategic implementation required to achieve that direction.[19] It attempts to model true human behavior. This model represents a more accurate method in determining the strategic planning process but really does not provide the framework for developing the strategic direction itself especially when the direction must be set by more than one organization. For our purposes, it is imperative to evaluate the dynamics each stakeholder brings to the decision making process within the context of our governmental system which entails much more than the services organization itself. The rational planning model does not account for political constraints and therefore, does not provide the decision process that captures our matrix.

In addition, the model may not be flexible enough to account for the complex network of relationships that exist because of our military chain of command and hierarchical structure. A fundamental assumption of the rational model is that either there will be agreement on the strategic direction and implementation or there will be

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[18] Lewis, T.G. (2004). *Critical Infrastructure Protection in Homeland Security: Defending a Networked Nation*, Volume 1. Monterey: Wiley-Interscience.

[19] Bryson, J.M. (2004). *Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement*, 3rd Edition. San Francisco: Jossey-Bass.

someone with enough *power and authority* that consensus does not matter.[20] Although wing leadership has this authority, the group (services, contracting and finance) must operate in a networked fashion when using the model so that all options are reviewed and put forth on their own merit. For our purposes, planning requires the identification of stakeholder interests and the development of personal relationships to resolve those issues. Most paramount, it requires a networked rather than hierarchical structure that this model does not capture.

3. Political Planning Model

Our decision model must include a political decision-making component which cannot be captured by MBVA or the rational planning model. Politics play a role in all organizations, private as well as public. Any decision-making approach that does not account for politics and power assumes that decision makers are rational actors who create strategies that all stakeholders embrace.

The political planning model is inductive, not deductive. It begins with identifying issues which involve conflict, not consensus[21]. Bohlman and Deal have set out the following propositions about the world of organizational politics.

a. Organizations are coalitions of various individuals and interest groups.

b. There are enduring differences among coalition members in values, beliefs, information, interests, and perceptions of reality.

c. Most important decisions involve the allocation of scarce resources—who gets what.

d. Scarce resources and enduring differences give conflict a central role in organizational dynamics and make power the most importance resource.

e. Goals and decisions emerge from bargaining, negotiation, and jockeying for position among different stakeholders[22].

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[20] Bryson, J.M. (2004). *Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement*, 3rd Edition. San Francisco: Jossey-Bass.

[21] Ibid.

[22] Bolman, L.G., & Deal, T.E. (1997). *Reframing Organizations: Artistry, Choice, and Leadership*, Second Ed. San Francisco: Jossey-Bass.

In our decision process, issues are often resolved through the implementation of various policies and programs that represent a reasonable level of agreement among the various stakeholders. Stakeholders will always pursue their own interests and agendas, and the decision maker must act as the mediator to ensure those stakeholders operate in a manner to reach the agreed upon desired outcome. Subjectivity, rather than objectivity, and the influence of politics are unavoidable in our governmental organization. Although this framework suits our needs for including a political framework, it ignores the elements of objectivity provided by the MBVA model and the hierarchical framework of the rational planning model.

4. Model for Decision Matrix

Our ideal strategic planning model must therefore combine the pertinent components of both the rational decision-making and political decision-making models. Our model takes into account both objective and subjective factors in a comprehensive, integrated systems approach. The use of objective tools will ensure that the model can be logically defended, replicated, and applied consistently across different food service operations while the use of subjective tools based upon common assumptions agreed upon by key stakeholders will ensure that those elements most prone to subjective interpretation are viewed as starting points for negotiation rather than unyielding end-states.

By creating this hybrid model, we are able to capture the key components of the models that ensure the decision maker completes a thorough analysis when determining the best course of action for their food operation. At the same time, the model captures the subjective nature of the decision and the political environment in which the decision must be made. This hybrid model allows us to develop the matrix as a framework for systematically analyzing the decision in an open system that has many stakeholders and agendas. This framework is the foundation for the matrix and is the stepping stone for the development of the criteria used to evaluate the options and the method used to rate those options discussed in the next two chapters.

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III. DECISION CRITERIA

This chapter will fully explain how we chose the matrix decision criteria. It will also define each criterion for the decision maker. Finally, it will discuss the survey used to validate the chosen criteria.

Because every wing has a different mission, the criteria must be flexible enough to allow a Services squadron to evaluate the five options identified in a systematic way. In addition, the criteria must be capable of being weighted so effective decisions can be made for each particular base. What is imperative to one organization may not be a requirement at another.

The initial decision criteria were developed solely on round table discussions among the three authors. Based on our operational experience in services, contracting and financial arenas, we thought these were critical factors. At this point, no input was solicited from outside resources. The five initial decision criteria were:

1. Cost/Price

2. Flexibility of the operation

3. Performance

4. Customer satisfaction

5. Capability of meeting training requirements

After further consideration and discussion among ourselves, we determined performance and customer satisfaction would not be good decision criteria. Although they are important factors towards performance evaluation, we believed the going in position of any base leadership, regardless of the method used to support food service operations, would be to obtain the best performance and customer service possible. It does not matter if you are using military, appropriated fund employees or NAF employees: regardless, you want to provide the best performance and service to the customer as possible. These may be important criteria to use when evaluating

performance and service throughout the performance period of an awarded contract or MOA, but this is beyond the scope of this decision matrix.

Instead of performance and customer satisfaction, we identified mission need and customer desire as decision criteria. Customer satisfaction and customer desire are not the same thing. Customer satisfaction reflects how customers evaluate the service and food at a dining facility and is measured based on the type of operation already in place and may be biased. The criteria must be forward looking to compare the five options and therefore customer satisfaction cannot be measured because the service has not yet been provided. Customer desire reflects if they want to continue receiving food free of charge from a dining facility or if they would rather have the dining facility closed and receive BAS. Customers can be happy with customer service and the quality of the food (a high customer satisfaction level) but still prefer to receive BAS. We felt both mission need and customer desire were important criteria to consider when making strategic decisions.

We also want to clarify the term "price" versus "cost." The term cost is more closely associated with the costs involved with conducting an operation. In a food service contract, this could be costs for labor, management, supplies-if any, reports, or anything else required of the contractor to support contract requirements. We assume most food service contracts will be Firm Fixed Price (FFP) contracts so we are concerned with the "price" of the contract. We assume contracts will be FFP because the requirements are rather easy to define (as compared to research and development, for example), it is a commercial item, and there are means of determining price fair and reasonableness. Reasonableness can be determined through adequate competition or it can be determined by evaluating price against other similar contracts throughout the Air Force and by using Service Contract Act wage determinations. When these elements are present, the government prefers to use a FFP contract to shift risk to the contractor. With a FFP contract, the contractor will be incentivized to control their costs as their profit is determined by subtracting contract price from their operating costs. The more the contractor controls their costs, the more profit they make. With a FFP contract,

price is the end total dollar amount the Air Force has to pay. Since we are not concerned with individual cost accounts, we used price as a decision criterion.

For our purposes, we are focusing on price rather than cost because all but three dining facility operations AF-wide are contracted. The scope of this initial study is directed towards monitoring the impact on wing O&M funds. We know the contract price which includes profit, whether full food service or mess attendant, and this establishes the baseline for comparison to other options. In addition, we will not address manpower changes because they are beyond the scope of this project. Therefore, if a base has a full food service contract, the decision falls to three options; contracted full food service, NAF MOA full service, or closing the facility and the same applies to mess attendant operations. Therefore, options such as moving from a mess attendant contract to a full food service contract would result in military manpower changes, which is outside the scope of this project. However, this provides an opportunity for additional research.

Therefore, we ultimately chose to rely on the following decision criteria:

1. Price

2. Flexibility

3. Mission Need

4. Customer Desire

5. Training (capability of meeting training requirements)

A. PRICE

With price, the concern is with the total dollar amount the base has to expend providing food service operations. For an APF full food service contract, price will be the total dollar value of the contract for a given year. For a NAF MOA full food service operation, price will be the total dollar value required to provide food service operations through the MOA. Price for mess attendant services, whether through contract or NAF MOA, will be the contract price to provide that service. When

assessing the price of closing the facility, we look at the dollar amout of providing BAS to the base population at a rate associated with no dining facility available.

Services organizations have seen the price of contracts increase over the years due to inflation, increased cost of living, increased requirements and the need for more flexible contracts. NAF MOAs provide a viable option for the same service at a potentially much lower price.

Price cannot be the only determining factor. Organizations in remote areas may not have the flexibility to hire NAF employees because there may not be enough people available and interested in the job. As a result, it may be worth the organization's dollars to put the onus on an APF contractor to ensure service is consistently provided. The contractor will have the same hiring issues but may pursue other venues of recruitment and incentives. This may indeed be more expensive, but may negate operational issues in the long run.

Another issue to consider is that NAF wages are regulated by Congress. NAF employee wages are determined by mandatory local wage surveys of the local economies near the installation. The goal of the government is to offer wages comparable to the local community. This helps prevent the luring of employees to an installation because of higher wages which may have a negative affect on the local community employment. Often, we see contract personnel paid significantly more than what NAF wages can support because the contractor simply passes the increased cost along to the government. This makes recruitment for the contractor much easier than for the Services squadron human resources office but makes the contract expensive for the installation. A Services squadron may achieve significant cost savings by pursuing the NAF MOA but must also weigh the dollar savings against the threat of high turnover and vacant positions because of the lower wages.

When considering closing a food services operation, the savings must be evaluated against the dollar amount of paying BAS to all dorm residents. The decision maker must identify the issues supporting dining facility operations and determine to what extent they are willing to pay for the service. By weighting this criterion

(discussed in the next chapter), you can assign a relative importance to price that fits the needs of your organization.

B. FLEXIBILITY OF THE OPERATION

Flexibility of the operation is primarily concerned with the ability of the operation to meet the mission on a moment's notice or as a result of changing requirements. Any food operation must have an operations plan to provide support during surges, deployment of assigned dining facility military personnel and or extended hours of service. Wing leadership is concerned with the flexibility of a contract or NAF MOA to provide the service needed under these unique circumstances. In addition, an additional charge is usually associated with this capability and this charge directly impacts the price criterion.

With a full food service APF contract, little impact is felt if military food service specialists deploy. The military food service specialists would be assigned to other Services squadron areas outside the dining facility. Since the dining facility is supported entirely by contract personnel, operations continue as normal with no impact on manpower. However, if a surge capability is required to support more troops than normal or extended hours of service are needed, there is an impact on the operation. With a contract, three agencies must be involved to meet the new mission requirement: Services, Contracting and Finance. The Services squadron does not have the authority to direct the contract manager to feed more people or extend hours. That contract modification must come from the Contracting Officer responsible for the food service contract and that individual may only act if funding has been approved for the changes. The Services squadron must submit a request to the Contracting squadron outlining the exact changes to the contract. The contractor will have to submit a proposal outlining the cost associated with the changes unless it has already been written into the contract as a contingency service. The Contracting Officer must negotiate with the contractor concerning the changes and then both parties must accept the negotiated results before service can be provided. Although organizations have become efficient at this process, it is not done on a moments notice.

A mess attendant APF contract is greatly affected by deployment of military food service specialists because these specialists were the individuals managing, cooking and baking in the facility. When troops deploy, a contingency portion of the contract is implemented where the contractor provides the individuals required to replace the military personnel. This is very costly and the approval process is the same as with a full food service operation so it is a lengthy process as well. This contract is also affected in much the same way as the full food service contract when the installation requires surge capability or extended hours.

The full food service and mess attendant NAF MOAs suffer from the same problems as their APF counterparts but they have one distinct benefit in that they require less coordinated effort. The Services squadron does not need to coordinate changes through the Contracting Officer. Services controls the personnel and can direct overtime or seek additional hires as long as the wing has funded the new requirements. Once again, the decision maker must use caution as to the capability of the HRO to hire personnel to meet the new mission requirements. If flexibility is a high priority, the NAF MOA is better than the APF contract, but having the flexibility and being able to implement the service are two different things. This criterion must be scored and weighted with that in mind.

C. MISSION NEED

Mission need refers to the requirement for a base dining facility from a mission standpoint. When considering the mission need category, sufficient communication should be exchanged with base leadership to ascertain their desires and feelings. Some influencing considerations include: location of base, other food service options on/off-base, extent of 24-hour operations on the base, dormitory facilities, available transportation and base populace and composition.

The physical location of the base could necessitate a base dining facility. Most Air Force members are afforded one hour for lunch. Remote locations could make obtaining sustenance from other sources unrealistic, especially during a lunch meal. Other physical characteristics could also necessitate a base dining facility. A large populace working on the flight-line or in a secure facility/area could prevent travel to

off-base locations for sustenance. Extreme, and lengthy, base entry procedures or uniform requirements/restrictions could restrict members to base. Local area traffic congestion could also prohibit off-base travel for sustenance.

Other food service options on/off-base certainly impact the need for a base dining-facility. If there are ample options, the need for a base dining facility may be minimal. However, individual meal times as well as individual days of the week need to be considered. Ample options may exist at lunch but not at other times of the day. There may not be any breakfast alternatives to the dining facility. It is very possible there may not be any options to the dining facilities midnight meal. Alternatives on individual days, weekends, and holidays need to be considered as well.

Around the clock operations may necessitate a base dining facility. Additional considerations need to be factored beyond just having 24-hour operations such as: number of personnel working swing or mid-shifts, type of personnel working those shifts and alternative eating establishments.

D. CUSTOMER DESIRE

This category simply addresses the existing, or potential food service operation's capability of meeting customer's desires. Enlisted airmen, residing in the dormitories, may prefer to receive BAS instead of eating at the base dining facility. If dormitories have cooking facilities, residents may prefer to buy their own groceries using BAS and cook their own food. If dormitories are a good walking distance from the dining facility, dorm residents may prefer BAS. If the dining facility is a distance away, they may prefer to either cook their own food or go elsewhere. The convenience of having a dining facility very near the dormitory is an advantage that is quickly eroded with even a little geographical separation of the base dining facility from dormitories. Many may think that if they are going to walk or drive a distance to get to a base dining facility, they'd rather just as easily walk or drive a distance to another establishment. Therefore, they may desire closing the base dining facility and receiving BAS. The type of food service support, or contract vehicle used, has nothing to do with these desires. Either enlisted airmen want the dining facility or they do not. This category does not take into consideration other categories such as mission needs and the

capability to meet training requirements. The weighting of each category, as discussed in the next chapter, will address how to weigh the importance of customer desire against other categories.

E. CAPABILITY OF MEETING TRAINING REQUIREMENTS

Service organizations have a wartime requirement for feeding personnel in deployed areas. Home station dining facilities provide the training grounds for this capability. If no military cooks are utilized or the operation is closed, this training cannot be met and the decision matrix must be scored accordingly. However, it is important to note that Services organizations are categorized into two categories; Services Squadrons and Services Divisions. Those AFB's with Services Squadrons have a military commitment to deploy Services personnel in support of wartime or humanitarian operations and therefore have a significant amount of Services military personnel who do indeed need this training. This means it is not feasible to operate a full food service APF contract or NAF MOA and it certainly is not feasible to close the dining facility. AFB's with Services Divisions, on the other hand, do not have mobility commitments and have very small numbers of Services military personnel assigned so no such training requirement is needed. It is indeed feasible to operate a full food service APF contract or NAF MOA and it is also feasible to close the facility when a Services Division is in place.

All of these criteria must be factored into the decision and scored on their own merits; based on the relative importance of each criterion, a squadron may tailor its operations to the specific needs of the organizational strategic direction of the wing.

To validate our decision criteria, we created a survey (see Appendix A) and sent it to 30 services personnel. Seven surveys, 23 percent, were returned. Although the number of surveys returned is not large enough to draw statistical inference or validate the criteria, the panel of experts we received them from provide substantial credibility to the criteria we chose. We feel these responses provide merit to our project but more surveys should be conducted in future research. The military grade of those returning the surveys were: one technical sergeant, one captain, four majors, and one GS-13. The average years of service within the Services arena were 14.3 years. Five of the

respondents had been, or are currently a Services squadron commander. Five of the respondents have overseen a food service operation. Six of them have implemented a new food service contract. Of those six, four were a mess attendant contract and two were a full food service contract.

The survey was developed to validate the decision criteria. All seven respondents concurred that the flexibility and mission need criteria were valid. Some comments received in these areas included "A NAF MOA affords more direct control of an operation for the Wing. No longer are you subject to contracted terms as the flexibility of a NAF MOA allows for business changes."

One respondent did not agree with the price criteria. The comment on this questionnaire under the price criteria stated money was provided by the MAJCOM Director of Operations so the WG/CC had no input when looking for money for the Wing. Even if the MAJCOM provides the money, the base should still be concerned with conducting efficient and effective operations. We feel the price category is valid despite this response. We are all caretakers of taxpayer money and should be concerned with price. One other respondent commented "In today's environment of contract cuts, price has become significant in a contract."

Four respondents did not agree with the customer desire criteria. The comments from these respondents in this area included: "Feeding is a wartime requirement and in order to train our Services troops they must run and provide a facility and food in peacetime," "Since we do house deployed forces, it would not be cost effective to close the dining facility," "Members were literally a captive audience," "Don't see how this would help a SVS determine which type of contract to choose." We feel that these comments do not justify non-validation of the customer desire criteria. These respondents non-concurred because their bases have a requirement to train Services personnel. We feel the responses are a result of a poorly written question which should be addressed and changed in future research. We wanted the respondents to look at the criteria based on its impact when comparing the different options at any AFB. It appears they responded based on their specific bases, which had a requirement for training. A comment from another respondent in this area was, "You always have to

keep the customer desires in mind. However, at some point there may not be enough meal card holders to validate continued operation of a dining facility." The matrix is designed with the flexibility to allow individual bases the capability to not consider this option or weigh it accordingly.

One respondent did not agree with the training criteria. The comment addressing this area on the returned questionnaire stated "Since our wartime mission is food and we earn a large portion of our go-to-war military bodies based on in-garrison food ops, don't think AFSVA would allow a large SVS to take on a full food contract. So, the scenario that would weight this high is not a player." This will probably apply to locations that have military personnel assigned but, there may be locations that don't have military personnel assigned. Again, the matrix has the flexibility to allow individual bases the capability to disregard certain options or weigh them accordingly. Comments from other respondents addressing this area included "Number 1 issue for food service staff," and "Most important to what we do."

Based on the information we received from these respondents, we feel the decision criteria have merit. Although there were some disagreements among the respondents, most appeared to be location specific or did not take into consideration the level of analysis we were looking for. We requested the criteria be evaluated based on things to consider when implementing a food service operation and some comments focused on the existing operation in place. The matrix is flexible enough to allow users the capability to adapt their considerations to their location specific circumstances. As a result, further research should consider tailoring the survey and sending it to a larger pool. In addition, interviews could be conducted with Air Staff personnel to gain a more strategic perspective. Overall, the criteria, although having significant impact on the decision, have little impact on the matrix itself. The matrix is designed to allow for changes of the criteria since its primary purpose is to force the decision maker to step through each of the options available to him/her based on the criteria they strategically choose.

This chapter fully explained and defined the decision criteria used. It also showed the method used to validate the established criteria. Chapter IV will explain the

decision matrix in its entirety. It will discuss how the options and criteria are meshed, weighted and mathematically scored to determine which option is the best for any specific AFB.

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IV. THE DECISION MATRIX

In order to develop a framework for analysis, a decision matrix was created. This chapter will discuss the decision matrix in its entirety. It will discuss how the options and criteria can be meshed, strategically weighted, and mathematically scored (using a 1-5 Likert scale) to determine which option is the best for any specific AFB.

The decision matrix will answer the question of which food service operation should be implemented at any AFB. The matrix includes viable options that will guide the type of contract or in-house service that the operation will provide and criteria used to evaluate the options. Although simple in design, it is imperative that the decision maker thoroughly evaluate and determine the appropriate score and weight of the criteria. By focusing on the inputs, if used as a strategic decision making tool, it simplifies and justifies the optimal outcome.

The decision matrix was designed to incorporate the criteria and options into a user-friendly model where the user inputs the data and the total score for each option is automatically calculated. The total score for each option is determined by multiplying each criteria value times the criteria weight. After all criteria values are inputted, the amount for each criteria, within each option, is added together to reflect a total score for each option. A blank matrix is displayed in Figure 1 and is further discussed below.

Decision matrix

XXXX AFB

Criteria	Options: Full Food Contract	Mess Attendant Contract	Full MOA	Mess Attendant MOA	Close	Weight
Price						
Flexibility						
Mission Need						
Customer Desire						
Training						
TOTAL SCORE						

Scale:

1 Does Not Meet Criteria
2 Somewhat Meets Criteria
3 Meets Criteria
4 Exceeds Criteria Somewhat
5 Significantly Exceeds Criteria

Figure 1. Blank Decision Matrix

The user should begin with a blank matrix. The primary considerations the user must determine to use the matrix are the scale and weight of the options. The scale is a Likert scale, using the numbers 1-5, so the user can pinpoint to what degree an option meets the set criteria for the base's mission. Users can also use any fractional number within the 1-5 scale. Although not specifically included in the scale range, zeros may be used if the option is not feasible. For example, if the user cannot consider closing the dining facility, zeros may be placed in each criterion for that option. The option either: Does Not Meet, Somewhat Meets, Meets, Somewhat Exceeds, or Exceeds the criteria for the mission.

The scale rating determination is based against current operating status. To compare options there must be a baseline and if we were to do nothing, the operation would stay the same. By comparing it to what is already in place, the users are able to score each of the options appropriately. They can look at each option and decide if it is

better or worse than status quo. For example, if the dining facility currently has military cooks and an APF mess attendant contract, the scale ratings for all other option criteria will be based on this operation. Does Not Meet criteria means the considered option is worse than the current option and does not meet mission requirements. Somewhat Meets Criteria means the option is worse than the current operation but somewhat meets mission requirements. Meets Criteria means the option meets mission requirements similar to existing services. Exceeds Criteria Somewhat means the option is better than current operations and somewhat exceeds mission requirements. Significantly Exceeds Criteria means the option is better than current operations and exceeds mission requirements. For example, consider the price criteria. If current operations consist of military cooks and an appropriated fund mess attendant contract, transitioning to a NAF mess attendant contract would be expected to Exceed mission requirements for the price criteria. Current operations have a set funding limit. If it is anticipated the NAF contract would be cheaper, it would fall within current funding levels plus return some money to the base. In addition, the NAF contract would meet the mess attendant mission requirements. Now, considering the reverse, going from a NAF mess attendant contract to an appropriated fund mess attendant contract would Not Meet mission requirements. Although the appropriated fund contract could meet physical contract requirements, it does not fall within current funding levels if the APF contract is expected to cost more than the NAF contract. The same philosophy is to be used for each of the criteria, options and scale ratings.

The weight for each criterion is also determined by the user based on the needs of the base's mission. The user will give the most weight to the most critical criterion and the least to the least critical. When developing the weightings, the user should consider the political environment, base leadership and stakeholder desires, economical considerations and mission requirements. If base leadership or mission requirements totally contradict customer desires to close the dining facility, the customer desire category may be weighted low at 5 percent, for example. If the base has a high training requirement for military services personnel, that category may be weighted high, for example 30 percent, to emphasize the training requirement. Funding is also an

important consideration. If reducing cost is a primary concern for the base, that category may be weighted heavily. The sum of all weights must equal one.

The starting point towards using the matrix is to consider the option the user's base is currently operating under. Next, consider the other four options and score them, independently, compared to current operation. Finally, weigh the options from most to least critical. The spreadsheet was designed to multiply each cell in the Criteria section by the Weight of that criterion. All are added for each option and the result is the total score for that option. The option with the highest total score is designated the best option for the base.

To illustrate this, see the example in Figure 2. We assume an AFB is initially operating under a Mess Attendant Contract. We first scored the Training criterion against all of the options assuming it was the most critical criterion due to high-intensity deployment training needs for the Services Squadron military personnel. The dining facility would be an integral part of that training.

Decision matrix

XXXX AFB

Criteria	Options: Full Food Contract	Mess Attendant Contract	Full MOA	Mess Attendant MOA	Close	Weight
Price						
Flexibility						
Mission Need						
Customer Desire						
Training	1	3	1	3	1	0.4
TOTAL SCORE	0.4	1.2	0.4	1.2	0.4	0.4

Scale:

1 Does Not Meet Criteria
2 Somewhat Meets Criteria
3 Meets Criteria
4 Exceeds Criteria Somewhat
5 Significantly Exceeds Criteria

Figure 2. Example Decision Matrix

First, under current operations, the Training need is Met so a 3 was input into that cell. Mess Attendant MOA provides the same level of service so it is assigned the same value. The options of Full Food Contract, Full MOA and Close, Do Not Meet the Training mission of the base so a score of 1 was input into those cells. The weight for this criterion is significantly impacted by the subjectivity of the stakeholders and the political environment. A weight of 40 percent represents the criticality of deployment training. It is important to note that the weightings cannot be done in a vacuum and should not be done independently of one of another. For example, training is absolutely necessary but it cannot be scored 100 percent because the other criterion must weigh into the decision as well. Therefore, although the weighting is subjective, it should be representative of the importance of each criterion within the context of the mission and within the framework of the system. The formulas at the bottom of each column have calculated the total score and total weight thus far.

Figure 3 illustrates a completed decision matrix for the AFB. Mess Attendant MOA received the highest score as it meets or exceeds the criteria with the most weight assigned to them. Chapter VI presents a case study on GFAFB illustrating how to complete the matrix.

Decision matrix
XXXX AFB

	Options					
Criteria	Full Food Contract	Mess Attendant Contract	Full MOA	Mess Attendant MOA	Close	Weight
Price	2	3	2	5	5	0.35
Flexibility	4	3	4	4	1	0.12
Mission Need	3	3	3	3	1	0.08
Customer Desire	2	2	2	2	4	0.05
Training	1	3	1	3	1	0.4
TOTAL SCORE	1.92	2.95	1.92	3.77	2.55	1

Scale:

1 Does Not Meet Criteria
2 Somewhat Meets Criteria
3 Meets Criteria
4 Exceeds Criteria Somewhat
5 Significantly Exceeds Criteria

Figure 3. Sample Completed Matrix

Although the decision matrix seems like a simplified analysis to determine the best course of action to implement a food service operation, it must be leveraged with a thorough understanding of strategic management in its entirety. Conflicting stakeholder interests, economic objectives and political agendas force decision makers in a military environment to make trade-offs and require concerted efforts to build consensus about the organizations purpose and strategic direction. Making a decision as to what food service operation to implement is only one small facet of the system. Forethought must be given to the strategic direction that is provided in support of the organization's mission and or vision, what type of organizational design will be

instituted as a result of the change in the technology of work, and how you intend to evaluate the organization in meeting its strategic objective through outputs and outcomes. The decision matrix is simply a tool to assist the decision maker in evaluating the strategic direction of the food service operation and recognizing that mission changes, over the five year life of a contract, may lead to an alternative option.

Now that the matrix and all of its components have been discussed, the next chapter will guide the user in actually implementing the matrix in a group setting. It will explore all of the issues that need to be considered when filling out the matrix and some factors that need to be considered when working in small groups (e.g., group dynamics and groupthink).

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V. HOW TO IMPLEMENT

A. INTRODUCTION

The key to implementing this matrix is using a team approach. Coordination among the Services, Contracting and Finance squadrons is essential to ensure they consider all aspects surrounding the decision. Before strategic analysis may be conducted one must understand the current food service operation. This analysis provides the baseline for comparison of the options. Once that is established the strategic analysis should be conducted as identified in Chapter II. To set the strategic decision making process in motion, the three squadron commanders and/or their representatives should meet to discuss:

1. Current food service operation support

2. Environmental assessment

3. Strategic direction

4. Strategic implementation

5. Strategic evaluation

Initial assessments in these areas are important to determine location specific circumstances that may eliminate any of the options from consideration. In addition, these assessments provide a basis for evaluating all remaining options. The decision maker may add additional members to the team to help analyze these areas. The squadron commanders may invite their deputies, or other personnel who understand the entire process well enough to fill out the matrix and provide additional input into the decision making process. A critical step in completing these assessments is to coordinate with the mission support group commander and/or wing commander. It is imperative to understand the senior wing leadership's vision and goals. The strategic direction for a wing comes from these senior leaders. Therefore, it is recommended that an initial meeting occur with the mission support group commander to get a sense of military and political constraints that may affect the process. Then, the team should conduct the analysis at the squadron level with a resulting recommendation that the

services squadron commander can present to both the mission support group and wing commanders.

B. CURRENT FOOD SERVICE OPERATION SUPPORT

During the initial planning meetings, the team should review the current method of providing food service operation support. Having a common starting point will identify future capabilities required in terms of funding, timing and training requirements. This also provides the baseline for which to compare all the food service options to determine if the matrix criteria are met, not met or exceeded.

1. Funding

The wing O&M dollars spent for the current food service operation identifies the funding available for alternatives without change to the wing budget. With wing funding continuing to tighten, every commander is concerned with maximizing efficiency of O&M dollars. When considering moving from one mode of support to another, price changes must be considered.

For example, if a wing currently has a mess attendant contract, moving to a full food service contract will require additional wing O&M funds. Therefore, the base would be concerned with any additional obligation of O&M funds required. At the other end of the spectrum, if a base has an APF mess attendant contract, moving to a NAF mess attendant contract may result in reductions to base O&M fund obligations. This would surely be a favorable funding situation for a base.

2. Timing

Understanding current means of support will provide a basis of how much time is available to complete the strategic decision making process. If there is a current APF contract, when will it expire? Does the contract have option years remaining? If staying with an APF contract but changing contractors, how much procurement action lead time is required to prevent a lapse in service? If moving to a NAF system, is sufficient manpower available in the local area? How long will it take to hire additional manpower from the local community? If moving from military support to APF/NAF, what types of reassignment actions are involved? These types of questions will need

answering before any actions are taken. Reviewing the current method of support will help answer these questions.

3. Training

The base services squadron manpower situation is critical. Consider how many military personnel are assigned, the base's deployment commitment and the ability to source additional military personnel to provide food service support. Not having a deployment requirement, or not having military personnel assigned, significantly raises the considerations required for moving to a full food service type contract or closing the base dining facility.

C. ENVIRONMENTAL ASSESSMENT

As discussed in Chapter II, when analyzing existing environmental conditions, leadership must consider internal and external factors. By conducting this assessment, the decision maker may determine the organization's strengths and weaknesses which may help in determining the best option for future operations. The main internal factor to consider is the task environment. The main external factor to consider during the analysis is the organization's competition. In addition, the decision maker must also consider the stakeholders and how they may impact the decision making process. These stakeholders may be internal or external factors and a thorough understanding of their ability to influence the decision is necessary to manage the strategic implementation.

1. Internal Environmental Analysis

The team must analyze the entire current internal environment to determine the effects of any changes. One part of the internal environment is the current organizational culture. How receptive will the organization be to change? Also look at the current labor force. Are individuals going to be adversely affected by unemployment, new management, wage reductions, and/or changes in assigned tasks? By thoroughly assessing the task environment, staff and contract employees can be prepared for the change on the horizon. Education and information are paramount to success.

2. External Environmental Analysis

An external analysis is a good tool to determine the necessity and viability of your operation. There is a lot of competition vying for food dollars and even though the dining facility is free, there is still a need for a defined strategy to bring in new customers and to keep existing ones. To develop this strategy, the organization must fully understand its competition. According to Porter[23] the state of competition in an industry depends on five basic forces: rivalry, threat of new entrants, bargaining power of suppliers, bargaining power of buyers, and threat of substitute products or services. We will briefly discuss how to analyze these forces.

When looking at rivalry, leadership must determine if the industry concentration is high or low. If the largest firms hold the majority of the market share, the industry is *highly* concentrated and competition is less intense (as in the case of monopolies). If the industry contains many rivals, with none owning a significant market share, the concentration is *low* and competition can be fierce. To gauge the intensity of the industry's competition, leadership must consider the following related factors[24]:

a. Competitors are numerous or roughly equal in size and power. If so, more businesses are competing for the same customers and resources.

b. Industry growth is slow, causing the businesses to fight for market share. In a growing market, businesses are able to improve revenues simply because of the expanding market.

c. The product or service lacks differentiation or switching costs. Differentiation and switching costs lock in buyers and protect companies from raids on its customers by others.

d. High fixed costs or perishable products creating strong temptation to cut prices.

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[23] Porter, M.E. (1979). How Competitive Forces Shape Strategy, *Harvard Business Review Publication*, March-April 1979, pg. 6.

[24] Ibid, 7.

e. High exit barriers keep companies competing even when the endeavor is not profitable. This is often the case in industries with specialized assets that cannot easily be sold. Excess capacity remains functioning, and the profitability of the healthy competitors suffers as the sick ones hang on.

f. The rivals are diverse in strategies, origins, and personalities. They have different ideas about how to compete and continually run head-on into each other in the process.

In addition to current rivals, leadership must analyze the threat of new firms entering the industry and increasing competition. If the industry has high entry barriers and a reputation of lashing out at new entrants, the threat is low. The table below summarizes what to look for when analyzing entry barriers[25].

Easy to Enter if there is:	**Difficult to Enter if there is:**
- Common technology	- Patented or proprietary know-how
- Little brand franchise	- Difficulty in brand switching
- Access to distribution channels	- Restricted distribution channels
- Low scale threshold	- High scale threshold

Table 1. Entry Barrier Signals

Bargaining power of suppliers is the third thing to look at. Powerful suppliers can squeeze profitability out of an industry by raising prices that cannot be recovered by the buyer's prices, or by reducing the quality of their goods and services. A supplier group is powerful if:

a. It is dominated by a few companies and is more concentrated than the industry it sells to.

[25] Porter, M.E. (n.d.) *Porter's Five Forces: A Model for Industry Analysis.* Retrieved October 15, 2006, from http://www.quickmba.com/strategy/porter.shtml.

b. Its product is unique or at least differentiated, or if it has built up high switching costs for the buyer.

c. It is not obliged to contend with other products for sale to the industry.

d. It poses a credible threat of integrating forward into the industry's business. This provides a check against the industry's ability to improve the terms on which it purchases.

e. The industry is not an important customer of the supplier group. List adapted by Porter[26].

On the flip side of that, leadership must also consider the bargaining power of buyers. Buyers can negatively affect industry profits by forcing down prices, demanding higher quality or more service, and playing competition against each other. A powerful buyer group exists when they:

a. Purchase in large volumes.

b. Purchase standard or undifferentiated products.

c. Represent a large percentage of supplier's sales.

d. Earn low profits driving their desire to lower costs.

e. Have the capability to backward integrate.

f. Do not save money due to the industry's undifferentiated product. (List adapted from Porter[27].)

The fifth component of determining the competitive environment involves analyzing the threat of substitute products. A substitute product can replace your product, for example high-fructose corn syrup can substitute for sugar. Substitutes may negatively affect industry profits by forcing a price ceiling. To prevent this, the industry must upgrade the quality of the product or service or differentiate it somehow.

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[26] Porter, M.E. (1979). How Competitive Forces Shape Strategy, *Harvard Business Review Publication*, March-April 1979, pg. 4.

[27] Ibid, 5.

Substitutes not only limit profits in normal times, they also reduce the bonanza an industry can reap in boom times. Substitutes that deserve the most attention strategically are those (a) subject to trends improving their price-performance trade-off with the industry's product, or (b) produced by industries earning high profits.

D. STRATEGIC DIRECTION

It is imperative to understand the stakeholders that affect strategic decision setting and their level of involvement. The primary stakeholders are Wing leadership, the Services squadron and the military customers. Wing leadership must provide sustenance to enlisted members residing in the dorm. They are also responsible for efficiently using public funds. As such, they will have a significant interest and level of involvement with any food service operation strategic direction. The base dining facility exists to support military customers. Therefore, their welfare needs to be considered heavily in any strategic decision.

At some bases, stakeholders may also include retirees, parents of military members, young enlisted troops with families authorized to use the facility, contractors and contract employees. Under certain situations, retirees and enlisted family members can utilize the dining facility. Although military customers may not play a direct role in strategic direction setting, their input may be felt if direction setting does not meet mission requirements.

E. STRATEGIC IMPLEMENTATION

Once a strategic direction is agreed upon, it is imperative to ensure that a thorough plan is in place to guide the services squadron forward into the chosen type of operation. If the decision is to stay with the current option, then the Services organization moves forward to implement the contract or NAF MOA when the current one expires. However, if the decision maker changes the strategic direction, the organization must put a lot of effort and forethought into the implementation of the new plan. Education and training of both employees and customers is key to the successful change. The services commander must develop a plan that informs and educates the stakeholders at all levels in four primary phases: planning, implementation, execution, and feedback. By focusing on these areas, the decision maker can determine what must

change and how to change it with the least impact on both internal and external stakeholders.

A review of the organizations structure, people, organizational processes, tasks and jobs, and the technology of work is required to effectively implement a strategic direction. In formulating the plan to change the food service operation, the focus should primarily be on the organizational processes to include:

1. Human resources and how people are selected, hired, trained, rewarded, promoted, developed and fired.

2. Information management associated with the processes that are in place to distribute and control information.

3. Resource allocation considering what funds are required, where will they come from and what resources are necessary to complete the mission both with food service and with administration.

4. Controls and measurements identifying practices to ensure the food service option will meet expectations and how measurement will be completed.

5. Acquisition/contracting looking at how much and who will handle the contracts.

6. Planning and decision making focused on how much will food service operators be empowered to make decisions whether they are contract, DoD, or NAF employees.

7. Communication addressing the chain of command and how can communication be conducted effectively to ensure success.

By addressing these processes for the existing operation, areas of concern, weakness or strengths may be identified allowing the optimal plan for implementation to be developed.

F. STRATEGIC EVALUATION

Strategic evaluation should not be the last item on the check list. Instead, the decision maker should consider the evaluation while in the process of determining the

direction and implementation of the strategy. When developing the implementation plan, it is paramount to define the process for evaluation as well. This evaluation directly links implementation to the results of strategic direction setting. The desired organizational outputs and outcomes must be defined and the process to measure those outputs and outcomes must be determined.

G. GROUP DYNAMICS

When completing this entire strategic process, members of the group need to remain aware of the basic concepts of group dynamics and the phenomenon of group think. Emotions are liable to run high in this situation when the group members disagree on an issue. Understanding group dynamics and groupthink can help alleviate or manage any conflict. Group dynamics implies that individual behaviors may differ depending on individuals' current or prospective connection to a sociological group[28]. A critical aspect of this is the 5-stage model Tuckman created in 1965. The model explains group development and the ideal group decision making process. The stages are: forming, storming, norming, performing, and adjourning. They are fully explained in below:[29]

During the first stage, *Forming*, personal relations are characterized by dependence and reliance on safe, patterned behavior. Members look to the group leader for guidance and direction. They desire group acceptance and a need to know the group is safe. They gather information about the similarities and differences among them and form preferences for future sub-grouping. Rules of behavior keep things simple and avoid controversy. Serious topics are avoided. The major task functions concern orientation. Members attempt to become oriented to the tasks. Discussions define the scope of the task, how to approach it, and similar concerns. To grow from this stage, each member must relinquish the comfort of non-threatening topics and risk the possibility of conflict.

The second stage, *Storming*, is the stage characterized by competition and conflict. As the group organizes, conflict inevitably results. There will be an increased

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[28] Wikipedia, The Free Encyclopedia (November 16, 2006). *Group Dynamics.* Retrieved November 20, 2006, from http://en.wikipedia.org/wiki/Group_dynamics.

[29] Retrieved November 16, 2006, from http://www.gmu.edu/student/csl/5stages.html.

desire for structural clarification and commitment. Questions arise about responsibility, rules, rewards, and evaluation criteria reflecting conflicts over leadership, structure, power, and authority. There may be wide swings in members' behavior from competition and hostilities. Some members may remain completely silent while others attempt to dominate. In order to progress to the next stage, group members must move from a "testing and proving" mentality to a problem-solving mentality. The most important trait in helping groups to move on to the next stage seems to be the ability to listen.

During the next stage, *Norming*, interpersonal relations are characterized by cohesion. Members engage in active acknowledgment of all members' contributions and solving group issues. Members are willing to change their preconceived ideas or opinions and actively ask questions. Leadership is shared and cliques dissolve. Trust rises and contributes to developing group cohesion. Members begin to experience a sense of group belonging. The major task function is the data flow between group members. They share feelings and ideas, solicit and give feedback to one another, and explore task related actions. Creativity is high. Members feel good about being part of an effective group. The major drawback of the norming stage is that members may begin to fear the inevitable future breakup of the group; they may resist change of any sort.

The fourth stage is *Performing*. This stage is not reached by all groups. Stage four is marked by interdependence in personal relations and problem solving. Capacity, range, and depth of personal relations expand to true interdependence. People work independently, in subgroups, or as a total unit with equal facility. Roles and authorities dynamically adjust to the changing needs of the group and individuals. Members are highly task and people oriented. There is unity: group identity is complete, group morale is high, and group loyalty is intense. The task function becomes genuine problem solving leading toward optimal solutions and optimum group development. The overall goal is productivity through problem solving and work.

The final stage is *Performing* and involves the termination of task behaviors and disengagement from relationships. A planned conclusion usually includes recognition

for participation and achievement and an opportunity to say goodbyes. Concluding a group can create apprehension. The termination of the group is a regressive movement from giving up control to giving up inclusion in the group. The most effective interventions are those that facilitate task termination and the disengagement process.

All groups go through most or all of these stages regardless of the amount of time they are in a group. If the group is together for a week versus a month the transition through the stages just happens but in the compressed time frame.

Groupthink is a mode of thought whereby individuals conform to what they perceive to be the consensus of the group. Groupthink may cause the group to make bad or irrational decisions which each member might individually consider to be unwise[30]. When discussing the individual matrix results, it would be detrimental if members who had differing outcomes succumbed to groupthink rather than collaborating, meaning they confront the issue directly and use problem solving approaches that would allow them to work out their differences for the best possible outcome. By understanding why the individual matrix results differed, the individuals are aware of the thought process of at least three of the stakeholders; the services, contracting, and finance organizations. By having open discussions about groupthink and recognizing the differing issues, they are less likely to fall into a groupthink mentality.

H. COMPLETING THE MATRIX

After these initial assessments are complete, the Services, Finance and Contracting squadron commanders should review the matrix. All players need to understand the criteria, the potential categories of support, the category weightings and the rating scale. If any service options will not be considered, such as closing the base dining facility, they can be deleted from the matrix.

Next, the members need to set the individual criteria weightings. This can be done through a myriad of processes. The members can simply talk through the

[30] Wikipedia, The Free Encyclopedia (November 16, 2006). *Group Dynamics.* Retrieved November 20, 2006, from http://en.wikipedia.org/wiki/Groupthink.

weightings coming to a consensus on each. They could each write down their individual beliefs identifying what they think the weightings should be and then take an average of each of the members' weightings. However they determine the weightings, in the end, they need to agree. Once again, it is important to stress that the members need to consider the priorities and visions of the wing senior leadership. The wing leadership can even be involved with this step of establishing the weightings.

There are several options available to assess customer desires. The existing food service operation can calculate traditional head count statistics. This will show the number of customers and trends. The team can also compare the count to the total number of enlisted members not receiving BAS, i.e., those who the dining facility exists to support. The services squadron can develop and distribute a survey to assess member's desires. One must consider the survey distribution methods so surveys will reach the broadest width of base members. If they are just distributed at the dining facility, for example, those who never frequent the facility may never get an opportunity to provide input.

Once the team sets the weightings, the members need to determine what ratings they will use. They could use the standard whole numbers 1-5 as proposed. They could allow for the use of fractional numbers or they could expand the rating scale to allow for greater diversity.

Once the matrix weightings and ratings are agreed upon, each member of the group should individually complete the matrix. When everyone is finished, a round table discussion should be completed to review each member's inputs and compare them among one another. To come to a final rating for each criterion under each option, one method is to use a promotion board type procedure. If there are any two members whose ratings for an individual criterion and option differ by more than one whole number, the entire group could hash out the final rating. Another method would be to simply calculate averages for each of the ratings. Whatever the method used, the procedure should be agreed upon before completing the individual matrices. Once the consolidated matrix is complete, the option totals will be easily identifiable at the

bottom of the matrix. The option with the highest total score is the most preferred option based on the rates and weightings used.

Now that the decision maker is aware of the process for implementing the decision matrix, we can illustrate its use in a real world environment. The following chapter provides a case study of the matrix as it is applied to GFAFB.

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VI. CASE STUDY: GRAND FORKS AIR FORCE BASE

A. INTRODUCTION

To validate the decision matrix, GFAFB was used as a test study. In October 2004, GFAFB converted their mess attendant contract to a NAF food service MOA. GFAFB was selected as a test case to compare the matrix results determined by the research group against the base decisions made in 2004 when no decision tool was available.

This chapter will provide an example of how to use the matrix in a real world situation. Rationale will be provided on all the decisions made and ratings as well as identify all assumptions associated with implementing the decision matrix. Combining this sample implementation with the background information on how to implement the decision matrix provided in Chapter V should provide a solid foundation towards clearly understanding how the matrix works and how to implement it.

It is important to note that decisions, assumptions, ratings and weightings outlined in this chapter are not the only results that could be formed. Situational factors may change, leadership may change or base mission and customer desires may change. As with any subjective evaluation, these are simple one group's results. They are not presented here to be used as a one-fits-all solution. Each base and each commander must use the situations that apply at their location, evaluate their options individually and implement the matrix accordingly.

Chapter V recommended the direct involvement of the base Services, Contracting and Finance squadrons in analyzing the options available to meet food service requirements. Similarly, the three members forming this research group represent those three squadrons. Chapter V also recommended wing leadership be involved. In this test study, historical experience of key players making the decision at GFAFB was relied upon. As an overview, the following topics will be discussed in the remainder of this chapter outlining how we completed the matrix and chose the best option for Grand Forks:

1. External Environmental Analysis on GFAFB

2. Determination of Criteria Rating Scale and Weighting

3. Food Service Option Ratings

    a. Full Food Contract

    b. Mess Attendant Contract

    c. Full MOA

    d. Mess Attendant MOA

    e. Close Dining Facility

4. Overall Matrix Results

B. EXTERNAL ENVIRONMENTAL ANALYSIS ON GFAFB

As discussed in Chapter VGFAFB is located in northeast North Dakota near the North Dakota/Minnesota state border. The base was re-aligned under Air Mobility Command in 1992 and was the first supertanker wing in the Air Force. According to the 2006 Grand Forks Fact Sheet, there are 3,586 people residing on-base[31]. There are 370 officers, 2,500 enlisted, and 370 civilian and contract employees working on-base[32].

Located just outside the gates of GFAFB is a small village called Emerado, with a population of 510, per the 2000 census[33]. The closest mentionable city is Grand Forks, 14 miles west of the base, with a population of about 50,000[34].

Figure 4 depicts the restaurant options available in the GFAFB/Emerado area. Eating options in the GFAFB/Emerado area are very limited during the breakfast meal.

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[31] Wikipedia, The Free Encyclopedia (November 14, 2006). *Grand Forks Air Force Base*. Retrieved November 20, 2006, from http://en.wikipedia.org/wiki/Grand_Forks_Air_Force_Base#Geography.

[32] Military.com Installation Guide. (n.d.) Grand Forks AFB, ND. Retrieved November 20, 2006, from http://benefits.military.com/misc/installations/Base_Content.jsp?id=3850.

[33] U.S. Census Bureau (n.d.). *North Dakota*. Retrieved August 12, 2006 from http://factfinder.census.gov/servlet/GCTTable?_bm=y&-geo_id=04000US38&-_box_head_nbr=GCT-PH1&-ds_name=DEC_2000_SF1_U&-format=ST-7.

[34] Global Security.org (January 21, 2006). *Grand Forks AFB, ND*. Retrieved August 12, 2006, from http://www.globalsecurity.org/military/facility/grand-forks.htm.

The option of traveling to the city of Grand Forks for lunch is unrealistic as the city is too far away for anyone allotted one hour for lunch.

	Burger King	Anthony's Pizza	Airey Dining Facility	Golf Course	Consolidated Club	Roma's Pizza	Domino's Pizza	Diary Queen**	Street Café	Subway	RJ's Pizza
Location											
On-Base	x	x	x	x	x						
Off-Base						x	x	x	x	x	x
Mon - Fri											
Breakfast	x		x	x							
Lunch	x	x	x	x				x			
Dinner	x	x	x		Thur/Fri only		x	x			
Midnight Chow			x				x				
Sat/Sun											
Breakfast			x								
Lunch			x				x	x			
Dinner			x				x	x			
Midnight Chow			x				x				

**Closed Thanksgiving through Valentine's Day

Figure 4. GFAFB/Emerado area restaurant options[35]

GFAFB operates the Airey Dining Facility primarily to provide subsistence to enlisted dorm residents, to train food service personnel to meet deployment requirements and to support flying operations with flight meals. Only enlisted members, or those specifically authorized by the installation commander to meet mission requirements, can utilize the dining facility[36].

Military pay, at a minimum, consists of Base Pay, Basic Allowance for Housing, and Basic Allowance for Subsistence (BAS). Enlisted members who live in base dorms do not receive BAS in their paycheck as other military members do. Instead, they receive Essential Station Mess (ESM), meaning they can go to the dining facility and eat at no charge. Enlisted members, who do not live in the dorms, and other authorized personnel who eat at the dining facility pay the food cost plus a surcharge for their meals. Dorm members and flight crew members are the dining facility's primary target market. All others compose the secondary market. All collected money is deposited in a central Air Force account. Food and sundries are

[35] AreaConnect (2006). Retrieved July 18, 2006, from http://grandforks.areaconnect.com/restaurants. Grand Forks Services (nd). Retrieved July 18, 2006, from http://www.gf-services.com/new/index.htm.

[36] HQ AFSVA/SVOHF (February 1, 1998). Air Force Instruction 34-239, Food Service Management Program. Retrieved November 20, 2006, from http://www.e-publishing.af.mil/pubfiles/af/34/afi34-239/afi34-239.pdf.

paid for by the Air Force and delivered via a regional prime vendor contract. If the dining facility outsources functions and/or personnel, contract funding is paid out of appropriated funds—funds allocated annually by Congress from taxpayer revenue—and no effort is made to recoup any contract cost through meal prices. The food service staff set the meal prices on the cost of food plus a slight mark-up to cover sundry costs.

The dining facility's strategy is to raise their target market's willingness to dine in the facility while serving low cost meals which appeal to the secondary market. They raise willingness to dine by providing fast, healthy food in a comfortable setting. Most customers are in a hurry in the morning or only have an hour for lunch so a fast meal is important. The dining facility also offers a variety of menu choices for the health conscious as well as those looking to satisfy a craving for fast food. The menu also changes from day to day to add additional variety. But, their strategy is not based solely on raising willingness to dine.

The dining facility also focuses on low cost. This is accomplished through regional prime vendor supply contracts as discussed above. These low costs are passed onto paying consumers by only charging the cost of food and sundries like salt and pepper, ketchup, and mayonnaise. Costs associated with outsourcing contracts, military manpower, and utilities are not calculated into the food prices charged to consumers. Food prices are only based on the cost of the food plus a small surcharge for sundries. The figures below reflect some dining facility prices from around the Air Force. Although these are not prices from the GFAFB dining facility, they are representative. Prices remain relatively constant across the Air Force.

The dining facility must make tradeoffs to successfully position itself. One tradeoff is associated with their customer base. They limit customers to enlisted members versus serving the entire base populace. To meet the expectations of customers concerning quick meals, the dining facility must mass produce their food and use progressive cooking techniques to stay ahead of the demand. They trade off between progressive cooking and cooking to order. Tradeoffs have to be made between offering variety and quickness of meals. The dining facility, striving to add variety, trades off between offering a few main dish items each day and offering a full menu.

Another tradeoff is associated with operating hours. By progressive cooking, they need to have a focused consumer base around a specific period of time or the food will go bad. Therefore, the dining facility limits its hours to a few hours around each meal as compared to staying open throughout the day.

Sample listing from F.E. Warren AFB's Grab and Go menu. Prices exclued 33% surcharge for non-meal card holders.

Grab and Go #1 - $2.95
Deli Sub
Individual Chips
Granola Bar
Fresh Fruit
Condiment and Lettuce Pack

Grab and Go #2 - $2.60
Herb Grilled Chicken Sandwich
Individual Chips
Fresh Fruit
Cookie, Individual

Grab and Go #3 - $1.35
Peanut Butter and Jelly Sandwich
Individual Chips
Fresh Fruit
Fruit Cocktail Cup

Grab and Go #4 - $1.60
Tuna Salad Sandwich
Individual Chips
Fresh Fruit
Cake with Frosting

Figure 5. Sample Prices from F.E. Warren AFB[37]

[37] Chadwell Dining Facility (n.d.). Retrieved May 20, 2006, from http://www.90svs.com/SVSDiningFacility.html.

Lunch menu from Laughlin AFB's dining facility. Prices exclude 33% surcharge.		
BBQ Ham Steak: $.75 Swedish Meatballs: $.55 Ham Salad Sandwich: $.75 Corn: $.35 Spinach: $.20 Coleslaw: $.20		Turkey & Noodles: $.70 Fishwich: $.70 Mashed Potatoes: $.10 Beans: $.35 Soup: $.35 Cucumber/onion Salad: $.20

Figure 6. Sample Dining Facility Prices from Laughlin AFB[38]

[38] Laughlin AFB Dining Facility Hotline. Retrieved June 7, 2006, from (830) 298-4688.

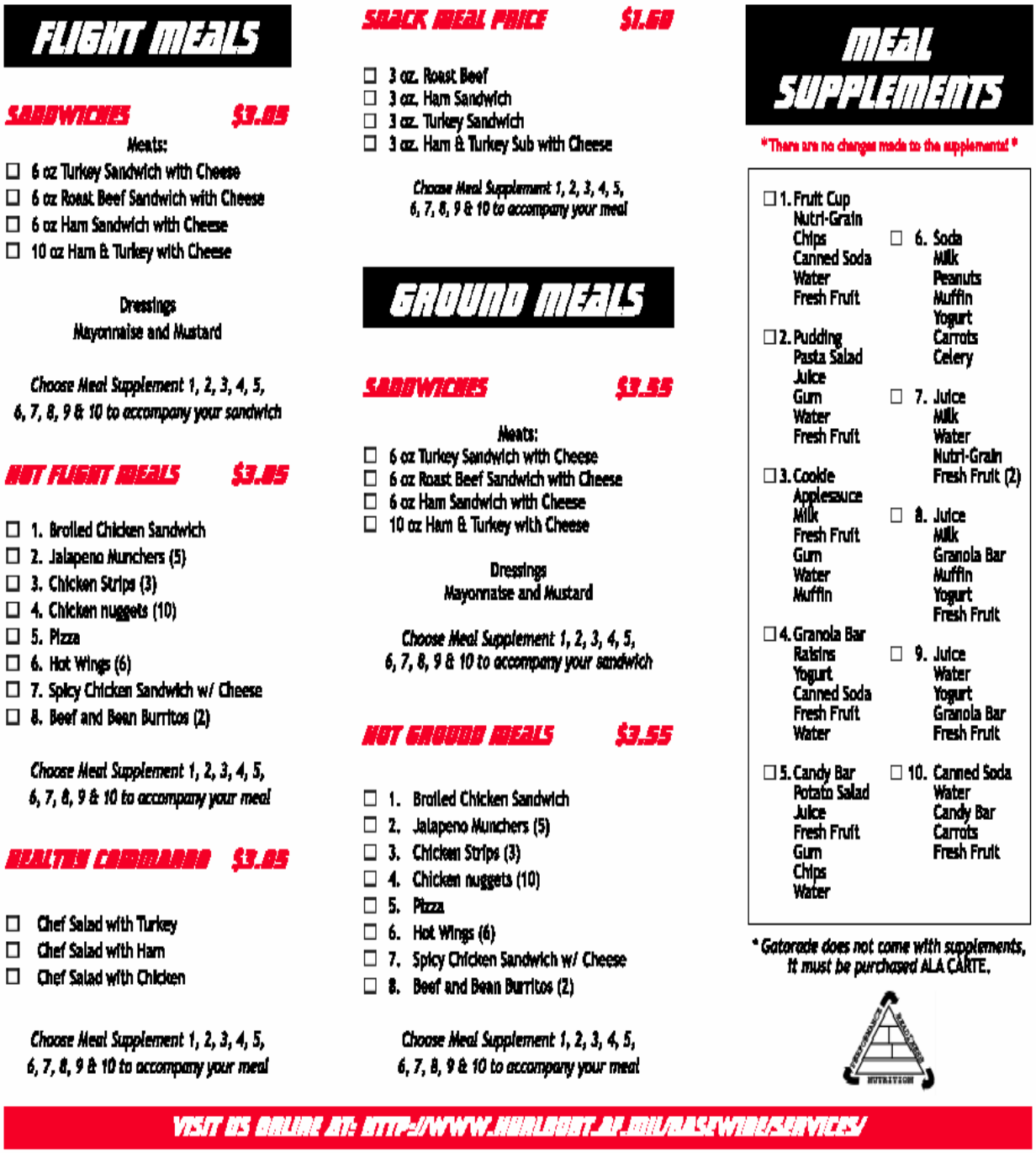

Figure 7. Hurlburt AFB Flight Kitchen Prices[39]

[39]Hurlburt Field Services (n.d.). *Flight Kitchen Menu*. Retrieved June 20, 2006, from http://www.hurlburt.af.mil/basewide/services/pdf/flightkit_food.pdf.

C. CRITERIA RATING SCALE AND WEIGHTINGS

The rating scale was kept simple with a 1 to 5 scale using whole numbers. Individual bases may decide to use fractional numbers. During the rating process, the average of the three member's (services, contracting, and finance representatives) ratings for each criterion/option rating were averaged. If there were any disagreements between two team members of more than one point (for example, one of us assigned a 3 but another thought it should be a 1), open discussions were conducted with all three team members to come to a consensus on the final decision matrix value.

The weightings of each criterion were also established. Since a critical function of the Grand Forks dining facility is to train 58 military services squadron personnel to meet deployment requirements, the training criteria was weighted highest at 40 percent. If the dining facility was not operational, the services squadron would have no means to train their personnel and Status of Resources and Training (SORTs) reporting would reflect a non-prepared state of readiness for the unit. Price of the mess attendant contract was also a critical factor. As the dining facility was currently supported by an appropriated fund mess attendant contract, any changes would have to remain within the current funding limits. The base was not prepared to expend additional funds and was in-fact looking for a price reduction. Therefore, the price criteria was weighted at 35 percent. Flexibility was the next important factor so it was weighted at 12 percent. The base needed flexibility to overcome mobility taskings that limited the amount of military support the squadron could provide to operate the dining facility. Flexibility was also required to ramp up operations for exercises, extended hour operations, increased operations tempo or increased TDY personnel to the base. The mission need criteria weighed 8 percent while the customer desire criteria weighed 5 percent. With base operations extending 24-hours a day, and limited feeding options available around the clock, mission need took precedence over customer desire. In-fact, given the demographics of GFAFB, virtually no weighting is given to customer desires to close the dining facility as discussed later.

It is important to note that GFAFB had a mess attendant contract in-place at the time the evaluation of options was occurring. Therefore, for the price ratings, the

current price of the mess attendant contract was used as a baseline. Options that would result in an overall cost savings were considered favorable whereas those resulting in price increases would not be favorable.

D. OVERALL FOOD SERVICE OPTION RATING SCALE

Each member completed an individual decision matrix to reflect their assessment of each of the criterion for each option. Individual ratings were compared and a consensus was reached for overall ratings for each option. Figure 8 outlines the overall ratings and scoring for each of the food service options for GFAFB. The remainder of this chapter will discuss each of the options and the rationale behind the ratings for each criterion within each option.

Decision matrix for:
GRAND FORKS AFB

	Options					
Criteria	Full Food Contract	Mess Atten Contract	Full MOA	Mess Atten MOA	Close	Weight
Price	2	3	2	5	5	0.35
Flexibility	4	3	4	4	1	0.12
Mission Need	3	3	3	3	1	0.08
Customer Desire	2	2	2	2	4	0.05
Training	1	3	1	3	1	0.4
TOTAL SCORE	**1.92**	**2.95**	**1.92**	**3.77**	**2.55**	**1**

Scale:
1: Does Not Meet 2: Somewhat Meets 3. Meets 4: Somewhat Exceeds 5: Exceeds

Figure 8. Completed GFAFB matrix

E. FULL FOOD CONTRACT

Figure 9 summarizes the overall ratings for the full food contract option.

	Options	
Criteria	Full Food Contract	Weight
Price	2	0.35
Flexibility	4	0.12
Mission Need	3	0.08
Customer Desire	2	0.05
Training	1	0.4
TOTAL SCORE	1.92	1

Figure 9. Full food contract option

For the price criterion, a 2 rating was assessed signifying it somewhat met requirements. Current operations, at the time, consisted of military cooks with a mess attendant contract. Through increased scope and management of the entire dining facility operation, it was believed some savings may be realized in the mess attendant area. In addition, when considering all factors, some savings may be realized in the cooking area. From a big picture Air Force level, the team should complete a cost benefit analysis to weigh the outcomes considering all costs and all colors of money. For example, military cooks are paid from central funds not under the control of the wing commander and don't impact the wing's operating budget. However, from a base level perspective, wing leadership may be primarily concerned with the wing's budget but should consider the overall Air Force picture. Changes would have to remain within current funding limits or requests for additional funds would have to be submitted. In this case, converting to a full food contract would not meet requirements as it would surely cost more to fund a full food contract out of base operations and

maintenance (O&M) funds than just funding a mess attendant contract. Evaluating this criterion will require each base to assess their priorities and concerns and determine their focus.

The flexibility criterion received a 4 rating. Moving from a current mess attendant contract to a full service contract would somewhat exceed requirements in terms of flexibility. In terms of increased flexibility, contracting the cooking operation would eliminate the issues associated with meeting dining facility manning requirements during heavy deployment cycles, meeting training requirements and all other requirements placed upon military personnel. Also, the contract could be structured to meet increased workload demands. This criterion was not rated as a 5 because it would still be a contract operation. Tasks, roles and responsibilities would have to still be clearly outlined in the contract. Changing contract terms and conditions would take additional effort, making it less flexible, than a military cooking operation or a MOA option.

Mission need received a 3 as it would meet requirements. The dining facility would be operational and base personnel would be provided sustenance.

Customer desire received a 2 rating. Based on operational data, the GFAFB dining facility maintained low head counts of ESM patrons. This leads to the belief that a majority of the dining facility customers, or potential customers, would prefer the option of closing the dining facility and receiving BAS. Moving to a full food service contract would not satisfy these customers' desires and therefore was rated a 2. It was not rated a 1 as personnel still utilized the dining facility and some customers may prefer the dining facility to remain open. Customer surveys, along with dining facility utilization rates, would be a beneficial tool to evaluate this criterion.

The training criterion received a 1 rating as moving to a full food service contract would eliminate the base's capability to train services personnel. A lack of training would degrade mission readiness and result in airman being non-qualified for deployment. As long as the base has deployment and training requirements, moving to a full food service contract would not meet requirements.

F. MESS ATTENDANT CONTRACT

Figure 10 summarizes the overall ratings for the mess attendant contract option.

	Options	
Criteria	Mess Attendant Contract	Weight
Price	3	0.35
Flexibility	3	0.12
Mission Need	3	0.08
Customer Desire	2	0.05
Training	3	0.4
TOTAL SCORE	2.95	1

Figure 10. Mess attendant contract option

At the time of the decision, GFAFB had a mess attendant contract so this option was to maintain status quo. Since this is the current method of support, and it was at the time meeting requirements, the price, flexibility, mission need and training criteria received 3 ratings signifying this option met requirements. For price, price would remain the same if the status quo was maintained so there would not be any savings or additional costs. Just like the full food service option, the customer desire option received a 2 rating.

G. FULL MOA

Figure 11 summarizes the overall ratings for the full MOA contract option.

	Options	
Criteria	Full MOA	Weight
Price	2	0.35
Flexibility	4	0.12
Mission Need	3	0.08
Customer Desire	2	0.05
Training	1	0.4
TOTAL SCORE	1.92	1

Figure 11. Full MOA contract option

The price criterion received a 2 rating signifying it somewhat met requirements. It was believed the price for the mess attendant portion would be less under an MOA than under the current system of using an appropriated fund contract. By completing the NAF MOA financial analysis, the services squadron estimated a $250,000 cost savings to the Wing O&M account[40]. This would be beneficial to the base and the Air Force. The overall price to support the cooking operations may be less under an MOA than through use of current military personnel. However, this would take additional research beyond the scope of this project. This wasn't pursued as the training requirement eliminated this option anyway. But to explain rationale, even if the MOA was less for the cooking operation, when considering the price of the cooking operation and the mess attendant operation the MOA would exceed current O&M funds expended by the base. One goal of GFAFB in considering their options was to reduce O&M expenditures if possible. Therefore, this option would not meet that goal and we therefore rated it a 2.

[40] NAF MOA at GFAFB dated 1 Oct 2004.

The flexibility criterion received a 4 rating. Moving from a current mess attendant contract to a full MOA service contract would somewhat exceed requirements in terms of flexibility. In terms of increased flexibility, having non-appropriated fund civilian cooks would eliminate the issues associated with meeting dining facility manning requirements during heavy deployment cycles, meeting training requirements and all other requirements placed upon military personnel. Also, steps could be taken to meet increased workload demands. It was not rated a 5 because meeting workload demands would still require additional part time hires or assistants. This may be difficult given the limited labor workforce available in the GFAFB area.

Mission need was received a 3 rating as it would meet requirements. The dining facility would be operational and base personnel would be provided sustenance.

Customer desire received a 2 rating. The dining facility would still be operational which would not meet the desires of the majority of the base populace. It was believed a majority of the dining facility customers, or potential customers, would prefer the option of closing the dining facility and receiving BAS, moving to a full MOA option would not satisfy these customers' desires and therefore was rated a 2. It was not rated a 1 as personnel still utilized the dining facility and some may prefer the dining facility to remain open.

The training criteria was rated a 1 as moving to a full MOA option would eliminate the base's capability to train services personnel. A lack of training would degrade mission readiness and result in airman being non-qualified for deployment. As long as the base has deployment and training requirements, moving to a full MOA option would not meet requirements.

H. MESS ATTENDANT MOA

Figure 12 summarizes our overall ratings for the mess attendant MOA contract option.

	Options	
Criteria	Mess Attendant MOA	Weight
Price	5	0.35
Flexibility	4	0.12
Mission Need	3	0.08
Customer Desire	2	0.05
Training	3	0.4
TOTAL SCORE	3.77	1

Figure 12. Mess Attendant MOA contract option

The price criterion received a 5 rating signifying it exceeds requirements. The price for a mess attendant MOA would be less than the current appropriated fund mess attendant contract. In addition, the current cooking operation would remain unchanged. Therefore, the Air Force overall would save money and the base would reduce O&M expenditures to support mess attendant operations.

The flexibility criterion received a 4 rating. Moving from a current mess attendant contract to a MOA service contract would somewhat exceed requirements in terms of flexibility. Flexibility would be increased as staffing would be under the control of the dining facility management. A contract, with clear terms and conditions would not be in-place. Therefore, if additional manpower was required or if flex hours were required, it would be much easier to adjust the workload under a MOA than under a contract. The contract would require a proposal from the contractor, possible negotiations and a contract modification. However, the issue of meeting cooking operations during heavy deployment cycles, meeting training requirements and all other

requirements placed upon military personnel would still be an issue. Therefore, this criterion was not rated a 5.

Mission need received a 3 rating as it would meet requirements. The dining facility would be operational and base personnel would be provided sustenance.

Customer desire received a 2 rating. As stated before, the dining facility would still be operational which would not meet the desires of the majority of the ESM patrons.

The training criteria received a 3 rating as a mess attendant MOA would meet training requirements. The current cooking operation, supported by military personnel, would remain unchanged. Therefore, military personnel would continue to receive training and proficiency experience supporting the deployment mission.

I. CLOSE DINING FACILITY

To fully evaluate the consideration of closing the base dining facility, an industry analysis was conducted on the restaurant industry (the dining facility is considered to be in the restaurant industry). The industry analysis helps analyze the dining facility's competitive advantage and addresses the issue of having a base dining facility or not (a make or buy decision).

The first step towards completing the industry analysis was to conduct a five forces analysis as discussed in Chapter V. In addition to these five, the effect of complements was also considered.

The threat of entry looks to assess how likely it is that other firms will enter the market and, in this case, threaten the base dining facilities operation. When the threat of entry is high, as in this case, firms must constantly be on guard to protect their existing market position. When determining the threat of entry, look at economies of scale, product differentiation, capital requirements and access to distribution channels.

In the restaurant industry, there are not significant economies of scale that deter entry of a single restaurant such as in this case. In this case, consideration was given to a single restaurant and not a chain trying to establish itself and take over national market share from another chain like McDonalds or Burger King. In such large scale

situations, economies of scale may force entrants to come in at a large scale but not in a single restaurant situation like this.

In general, product differentiation does not create an entry barrier in the GFAFB area. There may be some established brand identification with restaurants like Subway, Burger King or Dairy Queen. But national chains, for example McDonalds, have established national brand identity and could easily setup in the GFAFB area and are immediately identified. There may be some customer loyalty to the local mom and pop pizza places which may create a barrier for additional pizza places but, that loyalty would not create a significant barrier for non-pizza restaurants.

Capital requirements do not create a significant barrier to entry in this situation. Unlike opening a large manufacturing factory or a complex business requiring significant capital investments, opening a single restaurant does not require a significant upfront investment.

Concerning access to distribution channels in an area such as GFAFB, entrants would experience difficulties securing distribution of their products. Entrants would have to rely on gaining market share by overtaking it from existing competitors or hope for a growth in the size of the market. With a population of 510 for Emerado, the base is probably the only thing keeping it in existence. Entrants could not expect a large much of an increase in Emerado's population. In addition, the future size of Grand Forks AFB would also be a concern. Grand Forks has been, and continues to be, drawn down and considered for closure. In 1994, all the assigned B-1 aircraft were reassigned. In 1995, the base found itself on the base realignment and closure (BRAC) list and its missiles were relocated to another base. In 2005, the base again found itself on the BRAC list. Of the 40 assigned refueling aircraft, all except 12 will be reassigned. The base has been pinpointed as a potential unmanned aerial vehicle beddown location, but until that happens, new entrants to the restaurant industry are still taking a risk[41]. Finally, they would have to compete with the established

[41] Globalsecurity.org (January 21, 2006). *Grand Forks AFB, ND*. Retrieved May 20, 2006, from http://www.globalsecurity.org/military/facility/grand-forks.htm.

restaurants in the city of Grand Forks, only 14 miles away, for the dinner meal. With a population of 50,000, there is a great variety of shopping and eating establishments compared to GFAFB/Emerado incentivizing people living in the GFAFB area to travel to the city of Grand Forks.

For new establishments to operate on-base, they must setup a contract through the Services Squadron or the Army and Air Force Exchange Service (AAFES). Both have a large interest in the food service business on-base as they manage existing facilities and draw revenue from them. As new establishments are added, without expanding the consumer market, operating costs rise and profits fall. Therefore, both the Services Squadron and AAFES are reluctant to add new establishments.

Entrants would be better served by operating in Emerado compared to operating on-base. On-base, they limit their customer pool to those who have access to base. Operating off-base, they can serve anyone. However, again, with a small, non-growing consumer market, firms are not eager to enter the food service business in the GFAFB/Emerado area.

In summary, although economies of scale, product differentiation and capital requirements make it seem like entry would be easy, the difficulty in accessing distribution channels is the dominating factor in this situation. With a very small market in the GFAFB/Emerado area, the ability of entrants to distribute their products is questionable. Therefore, the overall threat of entry is low.

Next, the intensity of rivalry among existing competitors was examined and determined it to be high. Again, this signifies a stable environment for the base dining facility.

The direct competitors to the dining facility are the other eating establishments on-base and off-base in Emerado. Other competitors are the restaurants in Grand Forks, which are 14 miles away. Since Grand Forks is too far away for a 1 hour lunch, we only considered these restaurants as competitors for the dinner meal. The dining facility, golf course and Burger King are the only establishments on base open for breakfast. They serve a wide variety of breakfast plates at relatively low prices. For

the lunch meal, all base establishments are open and ready to serve. The two snack bars serve very similar types of food. The other places have the same daily menu, whereas the dining facility offers a daily variety.

The majority of competitors are roughly equal in size and power. When looking on-base, the competitors are very well known by military members as they are on just about every AFB in the U.S. They all serve similar types of food and no one in particular stands out as having a significant amount of power. Off-base, most competitors are major, well identified, fast food chain restaurants. None of them have dominated the area. When competitors are perceived to be balanced in terms of resources it can lead to intense rivalry in the industry and create instability because the competitors may be prone to take each other on and have the resources for sustained and vigorous retaliation[42].

Another factor that increases the intensity of rivalry in the GFAFB restaurant industry is that industry growth is slow. As stated above, for an entrant to establish itself on-base, there is extensive yellow tape to go through. Additionally, the population will probably not increase enough at GFAFB or Emerado to offer enough of an incentive for many restaurants to enter the industry and cause rapid growth. This situation turns competition into a market share game for firms seeking expansion. Market share competition is a great deal more volatile than the situation of rapid industry growth.

The pressure from substitute products was found to be low. The only substitute for eating in a restaurant is buying food at the grocery store (on base it's the Commissary) and cooking it yourself. Enlisted dorm residents have this option available as renovated dorms were built "One plus One" meaning two dorm rooms share a kitchen, which includes a fridge, oven, and microwave. With this option, troops can make exactly what they want to eat rather than choosing from a pre-selected menu

[42] Porter, M.E. (1983). *Note on the Structural Analysis of Industries*, Harvard Business School, June 30, 1983.

at the dining facility. Although troops have this option, if they live in the dorms they have no out-of-pocket expenses to eat at the dining facility where the costs to purchase food on their own comes out of their pocket. For enlisted members not living in the dorm, and getting paid BAS, buying and cooking food on their own is a very economical alternative to reduce out of pocket expenses as the monthly BAS allotment rarely covers all eating requirements for a month.

The bargaining power of buyers was found to be high. The main buyers for the GFAFB dining facility are the base's enlisted members. Switching costs for enlisted members receiving BAS are low as the alternative eating establishment costs are slightly higher but still comparable to the dining facilities. For enlisted members on ESM, they have to pay for food out of their pocket at alternative eating establishments but, beyond this, there are virtually no switching costs. In fact, a lot of members on ESM often eat at other establishments to provide variety and to eat and socialize with friends and colleagues. Besides alternative eating establishments, enlisted members can procure their own food from local grocery stores as discussed above.

The bargaining power of suppliers was determined low. Suppliers fall into two categories: those who supply the food and supplies necessary to operate the dining facility and those who supply the labor. Food is supplied through regional prime vendor contracts in which the Air Force leverages dining facility buying power. There is normally one primary contractor from which the dining facility gets most of its supplies. However, there are also provisions giving the dining facility capability to go out and get supplies from local sources in case of an emergency. As there are many food suppliers, establishing a prime vendor contract is highly competitive giving the Air Force a bargaining power over suppliers. In addition, the prime vendor knows the length of their contract. The contractor will be incentivized to provide the highest quality service and products if they want follow-on contracts. Establishing, or managing, past performance incentivizes contractors to perform even if they aren’t concerned about getting follow-on government contracts. As a prime vendor contract is a large, high-dollar contract, even non-governmental agencies will look at a contractor’s performance under a prime vendor contract to assess performance

potential. Those who provide the service (employees) are also suppliers to the dining facility. Employees are either military or civilian. For military members it is difficult to transition to another location without a PCS. It is also difficult for civilians given the Grand Forks location with limited employment opportunities.

Compliments to the dining facility were found to be high raising the value the dining facility provides. Compliments include:

1. The dining facility's seating capacity is much larger than any of its competitors—capable of holding 228 customers. Base leaders at all levels encourage supervisors to visit the dining facility to personally experience what services are being provided to their subordinate airmen. To do so, many commanders hold staff meetings or unit strategic planning meetings in the dining facility during meal time. Because of the large seating capacity, many commanders also hold commander's calls with their entire units during non-meal times.

2. The dining facility also offers special, free of charge, monthly birthday meals to recognize member's birthdays.

3. An in-flight kitchen, an extension of the dining facility, complements the dining facility by supporting aircrew members and base members working and unable to get to the dining facility. "Box meals" (premade food such as sandwiches, chips, soda and snacks packaged in a card board box) are delivered to aircraft to support aircrew member's meal requirements in-flight. In addition, organizational units can pick-up box meals for unit members who cannot leave their post to eat.

Overall, the collective strength of all the forces in the restaurant industry is weak. With entry barriers being high and exit barriers being low for this industry, this presents a potential best case scenario. If a firm can establish and maintain a competitive advantage and gain a majority market share, potential high returns are possible.

The next step was to look at the Grand Forks dining facility competitive advantage. The GFAFB dining facility has several unique and valuable activities that create a competitive advantage. These specific activities support their strategy of

providing low cost, quick, nutritious meals to the base's enlisted members which increases the customer's willingness to pay.

1. The primary competitive advantage is the meal ESM program for the enlisted members residing in the dorms. The program enables members to eat at the dining facility for free. The dining facility receives reimbursement funding for each meal served to an ESM customer.

2. The Air Force regulatory and budget system provides the dining facility with a competitive advantage. Any contract costs, military manpower costs or utility costs, are all paid through the use of appropriated funds. These costs are not used to calculate the prices the dining facility charges customers. As stated above, food prices are based on the cost of the food only plus a small surcharge for sundries. This significantly lowers food prices.

3. Large, diverse, nutritious menu for every meal. The main meal line offers 2-3 different types of meat and healthy sides to choose from. Their menu changes everyday to provide variety. This quality is scarce in the GFAFB/Emerado area and provides a significant advantage over most of their competitors who only offer fast food menus that do not change. To support customers who may have a fast food desire, the dining facility also offers a large snack line with made to order food like hamburgers, hot dogs and hot sandwiches. Combining nutrition, variety and diversity increases customer's willingness to pay.

4. Large seating capacity. Over crowding creates a negative atmosphere for customers. Since most enlisted members are entitled to a strict one-hour lunch, they want to get their food, eat, and get out. A large seating capacity allows customers to quickly find seating and reduces congestion in the serving line.

5. They offer periodic ethnic themed meals which coincide with the base's support of national holidays or events such as the Hispanic heritage month and Asian Pacific month. Since the Services Squadron manages the base's marketing campaigns, synergy is formed through sharing of activities to cross-promote functions and events.

6. Special holiday meals are offered on Thanksgiving, Christmas, and New Years Day. These meals are open to all base personnel, their families, and retirees. These meals build on the base's capability to share resources to build the reputation of the dining facility and base supervision. For example, during Thanksgiving, the base commanders, chief master sergeants and first sergeants serve the meals. The meals, with the leadership serving, provide a means of thanking the Airmen for everything they do and offering them a care-free meal to make the day that much more special.

7. The dining facility has the ability to increase patronage. If overall dining facility usage is low, the staff has the ability to open the dining facility to retirees for specified dates and meals.

8. The Services Squadron manages the dining facility, in-flight kitchen, golf course snack bar, consolidated club and bowling center. This allows for synergy of resources to lower cost and raise willingness to pay. Each function can share process control systems, process innovations, efficiency expertise and experience to lower costs. Willingness to pay can be raised through cross-promotion as well as by limiting competition. The functions can work together to develop the overall Services Squadron strategy. Since they control 60 percent of the food service business (in numbers of establishments) they can work to ensure promotions, advertisements and specials don't contradict each other.

9. As there are military functions that must be operational around the clock, the dining facility has a competitive advantage with its midnight meal. The only other facility open for business during the midnight timeframe is Domino's pizza. Their menu is limited as compared to the dining facility. In addition, organizations releasing enlisted members to eat a midnight meal often do so as time allows. The dining facility has an advantage over Dominos in terms of speed and variety of food. Dominos requires a lead time to cook the pizza.

The dining facility's competitive advantages, especially the primary aspects of having the ESM program and the Air Force regulatory/budget system, are sustainable. They are scarce and can not be imitated by competitors. Commercial firms cannot

afford to feed customers for free nor do they have access to appropriated funds to pay bills. If the dining facility outsources some/all of its functions, government personnel writing contract requirements will need to do so in a manner that accurately describes the requirements yet protects the interests of the government.

The other current competitive advantages of large seating capacity, large variety menu, quick service and synergy of promotions could easily be threatened. Given the small size of Emerado, it is unlikely a firm would come in and challenge the dining facility unless there is significant market growth.

Given this information, it was believed the best situation for Grand Forks Air Force Base was to continue dining facility operations. However, the decision matrix was still completed for the option to close the dining facility. Figure 13 summarizes our overall ratings for the option to close the dining facility.

Criteria	Options Close	Weight
Price	5	0.35
Flexibility	1	0.12
Mission Need	1	0.08
Customer Desire	4	0.05
Training	1	0.4
TOTAL SCORE	**2.55**	**1**

Figure 13. Close dining facility option

The price criterion received a 5 rating signifying it exceeded requirements. This was from a base level perspective. Closing the dining facility would eliminate the expenditure of O&M funds currently funding the mess attendant contract. However, from an Air Force perspective, additional cost benefit analysis would have to be completed to assess whether there are overall cost savings. There would be the O&M savings plus a savings in PCS and military pay by eliminating the cooking operation. However, there would be increased costs associated with paying BAS to existing ESM patrons.

The flexibility and mission need categories received 1 ratings signifying they would not meet requirements. Closing the dining facility would not provide any flexibility or capability to the base during exercises or contingencies. If there were increased temporary duty personnel assigned to the base, the base would not have any capability to increase feeding capability—they would have to rely on existing commercial services. If the mission required increased around the clock operations, there would be no capability to provide midnight meals. Looking at the chart in exhibit 1, there is only one existing commercial company providing late night meals.

Closing the dining facility would meet the desires of many of the dining facility customers. However, there are still those who frequent the dining facility and would prefer it to remain open. Therefore, the criterion received a 4 rating meaning it would somewhat exceed requirements.

Supporting the training of military cooks would not be possible if the dining facility was closed. Therefore, it was rated a 1. The option of closing the base dining facility may be advantageous to the government but additional, extensive and in-depth analysis would be required to evaluate this option. Reduction of costs in the area of moving costs, military salaries and dining facility operations costs would have to be analyzed against the increased costs of paying BAS. This sort of analysis is beyond the scope of this project.

J. OVERALL MATRIX RESULTS

Having completed the ratings for each criterion within each option, each rating was multiplied by the criteria weights to get an overall total score for each option. Figure 14 summarizes all the ratings, weights and total scores.

Decision matrix
Grand Forks AFB

Criteria	Options: Full Food Contract	Mess Attendant Contract	Full MOA	Mess Attendant MOA	Close	Weight
Price	2	3	2	5	5	0.35
Flexibility	4	3	4	4	1	0.12
Mission Need	3	3	3	3	1	0.08
Customer Desire	2	2	2	2	4	0.05
Training	1	3	1	3	1	0.4
TOTAL SCORE	**1.92**	**2.95**	**1.92**	**3.77**	**2.55**	**1**

Scale:

1 Does Not Meet Criteria
2 Somewhat Meets Criteria
3 Meets Criteria
4 Exceeds Criteria Somewhat
5 Significantly Exceeds Criteria

Figure 14. Overall matrix results

Looking at total score, the mess attendant MOA scored highest followed by the mess attendant contract. These results support the decision not to close the dining facility as well as the discussion concerning the military training requirement. Options that would eliminate the training capability have the lowest total score in the decision matrix.

VII. FINDINGS AND RECOMMENDATIONS

A. FINDINGS

The survey developed and distributed to validate the decision criteria added merit to the five proposed decision criteria. The survey was sent to 30 services personnel. Seven surveys, 23 percent, were returned. Although the number of surveys returned is not large enough to draw statistical inference or validate the criteria, the panel of experts we received them from provide substantial credibility to the criteria we chose. We feel these responses provide merit to our project, but more surveys should be conducted in future research.

The military grade of those returning the surveys were: one technical sergeant, one captain, four majors, and one GS-13. The average years of service within the Services arena were 14.3 years. Five of the respondents had been, or are currently a Services squadron commander. Five of the respondents have overseen a food service operation. Six of them have implemented a new food service contract. Of those six, four were a mess attendant contract and two were a full food service contract. Based on the information received from these respondents, it is believed the decision criteria have merit. Although there were some disagreements among the respondents, most appeared to be location specific or did not take into consideration big picture issues. We feel the disagreements are a result of a poorly written question which should be addressed and changed in future research. We wanted the respondents to look at the criteria based on its impact when comparing the different options at any AFB. It appears they responded based on their specific bases. However, the matrix is flexible enough to allow users the capability to adapt their considerations to their location specific circumstances.

Through research, it became apparent that organizations were using some form of strategic decision making to determine the best food service option but it tended to be haphazard and cursory and often did not include all the options available to the organization. The matrix was designed to provide a step by step tool to guide the decision maker through an open system to conduct a thorough strategic analysis. As a result of utilizing the matrix on a test base, GFAFB, it is believed a successful matrix

was created that balances subjective decision making with a model that allows objective evaluation.

As a result of the three researchers doing the matrix independently prior to completing it as a group, a more in-depth perspective of each of the options from each organizational perspective was gained. This perspective allowed a more objective scoring of the criteria to determine the course of action. The weighting system provided the capability to address the more subjective issues surrounding the political environmental and stakeholder concerns. Based on the analysis, it was determined the best course of action is to implement a mess attendant NAF MOA.

In 2004, GFAFB decided to implement a mess attendant NAF MOA. Although the matrix was not developed and used, they did not simply remain on autopilot and renew a contract. They did apply some strategic analysis to determine that a mess attendant NAF MOA was the needed food service operation at their base. There analysis led to the same conclusion. Now the question becomes, "Was this a good decision or not?" The next section provides data on the GFAFB food service operation which has now been in place for two years and provides tentative support for the decision matrix.

B. VALIDATION

To validate the outcome of the matrix, the results of implementing a mess attendant NAF MOA at GFAFB was compared against the scoring of the criteria. In the category of price, the NAF MOA scored a five as it exceeded the mess attendant contract in place. The estimate was a savings of $250,000 a year[43] for the wing operation and maintenance fund and after a year of operation, the savings were realized. The NAF MOA scored a four for flexibility and with two years of operation complete, the squadron recognized that implementing training, extending hours and making changes was greatly enhanced and the time to implement was drastically reduced. This option scored the same as the mess attendant contract in the categories of mission need, customer desire and training. There was not a perceived benefit of this NAF MOA

[43] NAF MOA at GFAFB dated 1 October 2004.

over the mess attendant contract. However, speaking with the squadron, the organization felt there was indeed improvement in these areas above and beyond just meeting the standard. As a result of the increased flexibility, the dining facility was better able to meet mission changes, customer desire and improved training of food service personnel.

C. RECOMMENDATIONS

Researchers have done little analysis on military food service operations. This attempt to develop a strategic decision making tool for determining the best food service option for any AFB is the first of its kind. Although it is not highly analytical, it combines a much needed approach of both objective and subjective methodology. However, further research is necessary to fully reach the potential of this decision making tool. Specifically, it is recommended that further research be done in at least the following areas:

1. Legal Issues

For purposes of this research, it was assumed NAF MOAs were a viable option available to the decision maker. However, at the current time, many legal issues surround the use of the NAF MOA. Many stem from cases being brought against the government from contractors no longer able to provide the food service program. The contractors lost the opportunity to provide a service at a substantial profit. Research could be done to show the benefits of the NAF MOA demonstrating the benefits outweigh the contractor concerns.

2. NAF MOAs

This matrix may be applicable to evaluate all Services contracts where NAF MOAs are a viable option. The user may need to change the criteria but the basis of study surrounding strategic management and the matrix itself start as a launching point to objectively evaluate other contracting decisions surrounding NAF MOAs.

3. Other Contracting Decisions

The matrix may be a viable tool to evaluate other contracting decisions. The matrix lends itself to use by other organizations because of its simplicity and flexibility. By simply changing the options and criteria, the matrix can become a strategic decision making framework for any contracting decision being made by an organization.

4. Outsourcing Decisions

Although there are significant requirements already established outlining outsourcing decisions, the matrix could be a beneficial tool in evaluating possible options which go beyond just staying in-house or outsourcing. By working through the framework of the matrix, possible options for providing the service may become apparent.

5. Air Force Wide Use

As demonstrated, there is much applicability in using the matrix when faced with contracting decisions. However, the flexibility and simplicity of the matrix may lead itself to use AF-wide. By changing the options and the criteria, it may become applicable to any situation. The matrix simply provides a framework for analysis of an open system to most effectively make a strategic decision.

6. DoD Usage

It is not beyond the scope of the matrix to be useful within the DoD. Much more study would need to be conducted to determine the applicability of the matrix but it would provide a methodology to act as a platform for DoD strategic decision making. For DoD applications, researchers should incorporate total cost of operations analysis to include manpower.

D. CONCLUSION

As mentioned, this matrix was the groundwork for research surrounding strategic decision making in military dining facilities and further research and data collection is necessary to fully develop the potential of the decision matrix. The intent was to develop a tool which allowed the decision maker to look more strategically at all the options available to provide for the food service operation at any given base. By analyzing the decision based on the available options and the weighted criteria, it was determined the best course of action was indeed the one that GFAFB chose.

Although the decision matrix seems like a simplified analysis to determine the best course of action to implement a food service operation, it must be leveraged with a thorough understanding of strategic management in its entirety. Conflicting stakeholder interests, economic objectives and political agendas force decision makers

in a military environment to make trade-offs and require concerted effort to build a consensus about the organization's purpose and strategic direction. Making a decision as to what food service operation to implement is only one small facet of the system. Forethought must be given to the strategic direction that is provided in support of the organization's mission and or vision, what type of organizational design will be instituted as a result of the change in the technology of work, and how you intend to evaluate the organization in meeting its strategic objective through outputs and outcomes. The decision matrix is simply a tool to assist the decision maker in evaluating the strategic direction of the food service operation and identifying that mission changes over the five year life of a contract may lead to an alternative option if evaluated rather than just remaining on auto pilot.

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APPENDIX A: CRITERIA SURVEY

Naval Postgraduate School
MBA Project:
A Strategic Decision Matrix for Analyzing Food Service Operations at Air Force Bases

Maj Beth Demmons, Services Officer
Capt Dave Rohlinger, Contracting Officer
1Lt Julie Heiman, Finance Officer

Background

For years, Services organizations have operated dining facilities with little change to strategic direction for the type of operation they should implement. Contracts, whether full food service or mess attendant, often run on auto pilot. Organizations renew the contracts when their option years run out with little change or modification to the contract. The only thing that seems to change is the ever increasing price of the contract and perhaps the contractor. This analysis will attempt to provide a framework for change that provides a tool for decision makers to utilize when faced with a feeding contract that has reached the end of its service life.

Research Question

Through our analysis, we will develop a "decision matrix to select a food service system for Air Force bases." The decision matrix will help answer the question of which food service operation should be implemented at any AFB. The matrix will include criteria to evaluate the options while guiding the type of contract or in-house service that best meets the base requirement. In addition, to be of use to any Services organization at any AFB, it will be a decision tool that any evaluator may adapt to their specific requirements and constraints.

Options

We identified and legitimized five potential options to meet that objective. For our project, we identified but ignored the legal issues currently surrounding the NAF MOAs for dining facilities.

- Full food service appropriated fund (APF) contract
- A mess attendant APF contract
- A full food service nonappropriated fund (NAF) memorandum of agreement (MOA)
- A mess attendant NAF MOA
- Closing dining operations entirely

Criteria

Because every wing has a different mission, we must have criteria that are flexible enough to allow a Services squadron to evaluate the five options identified in a systematic way. In addition, we must allow that same criteria to be weighted so effective decisions can be made for that particular base. What is imperative to one organization may not be a requirement at another. The decision criteria we developed are:

- Price
- Flexibility of the operation

- Mission need
- Customer desire
- Capability of meeting SVS training requirements

All of these criteria must be factored into the decision and scored on there own merit but based on the relative importance of each criterion, a squadron may tailor its operations to the specific needs of the organizational strategic direction of the wing.

YOUR ASSISTANCE PLEASE

We need your assistance to validate the criteria we have selected to evaluate what strategic direction to take in establishing APF food operations at any AFB. For purposes of our study, and the time frame we have to accomplish it, we have narrowed our criteria but request that you provide input on whether you think they are valid or not and why. In addition, if you think there are criteria we should add, please let us know. Please note that participation is anonymous. If you elect to respond via e-mail, we will remove addresses prior to reading. If you wish to mail your survey, please send it to: Maj Demmons, 2630 Ardennes Cr, Seaside, CA 92955.

Rank:
Years of 34M service:
Have you been a SVS Squadron Commander?
Have you overseen a food service operation?
Have you implemented a new food service contract? If yes, what type (full food service, mess attendant)?

Please evaluate the following criteria as valid or not and provide comment if warranted:

Price – Driven by cost of operation and is weighted based on importance to the unit. For example, if WG/CC is looking to cut contract cost, this may be weighted heavily to scale towards NAF MOA. If funding is always there for contract, this may be weighted lightly.

Valid: Yes No Comment:

Flexibility of the Operation - Primarily concerned with the ability of the operation to meet the mission on a moments notice or as a result of changing requirements. Any food operation must have a plan for surge capability, deployment of military personnel working in the operation and or extended hours of service. A concern of leadership is the flexibility of a contract or NAF MOA to provide the service needed under these unique circumstances. In addition, a cost is usually associated with this capability and directly impacts the cost criterion.

Valid: Yes No Comment:

Mission Need – Is there a need to feed midnight shift workers and no other food operations are available?

Valid: Yes No Comment:

Customer Desire – What is the need/want of the customer base and how important is their input? For example, if dining facility patronage is low and dorm residents have new dorms

with kitchen facilities and don't want to use the dining facility, this may be weighted high. However, if there is a desire to close the facility, but Subsistence-In-Kind personnel have few food options, it may be weighted low.
Valid: Yes No Comment:

Capability of Meeting Training Requirements - Service organizations have a wartime requirement for feeding in deployed areas and dining facilities are the training grounds for this capability. If operation is full food service because of a small number of 3MO personnel, this criteria may be weighted low because there is limited need for this training. However, if you have a Service Squadron, this criteria may be weighted extremely high to maintain our readiness posture.

Valid: Yes No Comment:

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APPENDIX B: QUICK REFRENCE USERS GUIDE

A. INTRODUCTION

Services squadrons have the responsibility of feeding enlisted troops. For years, Services organizations have operated dining facilities seldom changing the strategic direction for the type of operation they should implement. Dining facility support contracts, whether full food service or mess attendant, often run on auto pilot. Organizations renew the contracts when their option years run out with little change or modification to the contract. The only thing that seems to change is the ever increasing price of the contract and perhaps the contractor. This strategic decision matrix will provide a tool for decision makers to utilize towards selecting a food service system by guiding the strategic decision making process and answering the question of which food service operations should be implemented at any air force base. This user's guide will provide a quick reference to assist with implementing the decision matrix. This guide will first provide a description of the matrix discussing food service support options, criteria, weightings and ratings. It will then address how to complete the matrix and finally discuss some teaming/group think issues that may be encountered during the process.

B. DESCRIPTION OF THE DECISION MATRIX

The decision matrix was designed to provide decision makers with a user-friendly model where the user inputs the data and the total score for each option is automatically calculated. Established criteria are rated and weighted for each type of food service support. A blank matrix is displayed below.

Decision matrix

XXXX AFB

Criteria	Options: Full Food Contract	Mess Attendant Contract	Full MOA	Mess Attendant MOA	Close	Weight
Price						
Flexibility						
Mission Need						
Customer Desire						
Training						
TOTAL SCORE	0	0	0	0	0	0

Scale:

1 Does Not Meet Criteria
2 Somewhat Meets Criteria
3 Meets Criteria
4 Exceeds Criteria Somewhat
5 Significantly Exceeds Criteria

Figure 15. Blank Decision Matrix

1. Food Service Support Options

The five food service support options listed in the matrix, and their characteristics, are:

a. Full Food Contract

(1) Wing funded operational and maintenance (O&M) APF dollars

(2) Awarded to a commercial food service operation

(3) Civilian contract personnel manage all operations of the dining facility to include administrative staff, cooking staff and mess attendant staff

(4) Oversight is usually provided by a military Services specialist assigned as a quality assurance evaluator to ensure the terms of the contract are indeed being accomplished by the contractor

(5) Usually very costly and is usually found at bases with a small number of military Services squadron personnel.

b. Mess attendant APF contract

(1) Commercial food service operation, but only provides service in the mess attendant arena such as bussing tables, food preparation, dishwashing, serving and cashiers

(2) Services squadron military personnel manage the administration and operation of the facility and conduct all the cooking and baking.

(3) Funded by wing O&M APF dollars and is the standard contract for most dining facilities in the Air Force.

c. Full service NAF MOA

(1) Same as a full service APF contract except that instead of contracting with a civilian contractor to provide the service, the installation contracts with the Services squadron through a MOA

(2) Funded through wing O&M APF dollars but the dollars are paid to the Services Moral, Welfare and Recreation (MWR) fund

(3) The Services Human Resources Office (HRO) hires NAF civilian employees (not contractors) to provide the service. Personnel management of these employees falls under the human resource office of the Services squadron.

(4) Costs are significantly cut because, unlike the contractor, the MWR fund does not operate for large profit. AF instruction requires the fund to break even with a seven percent profit margin for recapitalization of equipment.

(5) The manager of the dining facility in this scenario would be a military food service specialist who would also perform the duties that a quality assurance evaluator would perform under a civilian contract.

d. Mess attendant NAF MOA

(1) Uses NAF civilian employees but only provides the mess attendant functions of the dining facility

(2) Operations, administration, cooking and baking remain a function of the military food service specialists

(3) Funded with wing O&M APF dollars that are paid to the MWR fund.

e. Close dining operations

(1) Base dining facility operations are closed

(2) All airmen receive basic allowance for subsistence (BAS)

2. Criteria

Because every wing has a different mission, the criteria were developed to be flexible enough to allow any Services squadron to evaluate the five options identified in a systematic way.

The five decision criteria listed in the matrix are price, flexibility, mission need, customer desire and training.

a. Price--the total dollar amount the Air Force has to expend providing food service operations.

(1) Consider current method of providing food service support and total appropriated dollars being expended

(2) A main focus for the base will be how much O&M funds are being expended. Moving from a military operation to a contract, or expanded contract,

will require additional O&M funds beyond what is currently being expended. Moving from an APF contract to a NAF MOA may result in cost savings and reduced O&M expenditures.

(3) When considering closing a food services operation, the savings must be evaluated against the cost of paying BAS to all dorm residents.

(4) Consider the ability to hire NAF employees of the local economy. If this is limited, it may be worth paying additional money to a contractor putting the onus on them to hire employees and ensure service is consistently provided.

b. Flexibility--the ability of the operation to meet changing mission requirements on a moments notice or as a result of changing requirements. Consider required support during surges, deployment of assigned dining facility military personnel and or extended hours of service.

c. Mission Need--refers to the requirement for a base dining facility from a mission standpoint. Sufficient communication should be exchanged with base leadership to ascertain their desires and feelings. Some influencing considerations include: location of base, other food service options on/off-base, and extent of 24-hour operations on the base, dormitory facilities, base populace and composite.

d. Customer Desire--addresses the existing, or potential food service operations, capability of meeting the customer's desires.

(1) Enlisted airmen, residing in the dormitories, may prefer to receive BAS instead of eating at the base dining facility. Some considerations include dormitory cooking facilities and distance from the dormitories to the dining facility.

(2) This category does not take into consideration other categories such as mission needs and the capability to meet training requirements. The weighting of each category will address how to weigh the importance of customer desire against other categories.

e. Training (capability of meeting training requirements). Service organizations have a wartime requirement for feeding personnel in deployed areas. Home station dining facilities provide the training grounds for this capability.

All of these criteria must be factored into the decision and scored on their own merit but based on the relative importance of each criterion, a squadron may tailor its operations to the specific needs of the organizational strategic direction of the wing.

3. Ratings

The rating scale is a Likert scale, using the numbers 1-5, so the user can pinpoint to what degree an option meets the set criteria for the base's mission. Users may expand the scale beyond 5 to give a broader range or use fractional numbers within the scale. Although not specifically included in the scale range, zeros may be used if the option is not feasible. For example, if the user cannot consider closing the dining facility, zeros may be placed in each criterion for that option. The option either: Does Not Meet, Somewhat Meets, Meets, Somewhat Exceeds, or Exceeds the criteria for the mission.

The scale rating determination is based against current operating status. For example, if the dining facility currently has military cooks and an APF mess attendant contract, the scale ratings for all other option criteria will be based on this operation. Does Not Meet means the considered option is worse off than the current option and does not meet mission requirements. Somewhat Meets means the option is worse off than the current operation but somewhat meets mission requirements. Meets means the option meets mission requirements. Somewhat Exceeds means the option is better than current operations and somewhat exceeds mission requirements. Exceeds means the option is better than current operations and exceeds mission requirements. For example, we'll consider the price criteria. If current operations consist of military cooks and an appropriated fund mess attendant contract, transitioning to a NAF mess attendant contract would be expected to Exceed mission requirements. Current operations have a set funding limit. If it is anticipated the NAF contract would be cheaper, it would fall within current funding levels plus return some money to the base. In addition, the NAF contract would meet the mess attendant mission requirements.

Now, considering the reverse, going from a NAF mess attendant contract to an appropriated fund mess attendant contract would Not Meet mission requirements. Although the appropriated fund contract could meet physical contract requirements, it does not fall within current funding levels if the APF contract is expected to cost more than the NAF contract. The same philosophy is to be used for each of the criteria, options and scale ratings.

4. Weightings

The weight for each criterion is also determined by the user based on the needs of the base's mission. The user will give the most weight to the most critical criterion and the least to the least critical. When developing the weightings, the user should consider the political environment, base leadership and stakeholder desires, economical considerations and mission requirements. If base leadership or mission requirements totally contradict customer desires to close the dining facility, the customer desire category may be weighted low at 5 percent, for example. If the base has a high training requirement for military services personnel, that category may be weighted high, for example 30 percent, to emphasize the training requirement. Funding is also an important consideration. If reducing cost is a primary concern for the base, that category may be weighted heavily. The sum of all weights must equal 1.

Although simple in design, it is imperative that the decision maker thoroughly evaluates and determines the appropriate score and weight of the criteria. By focusing on the inputs, if used as a strategic decision making tool, it simplifies and justifies the optimal outcome.

C. COMPLETING THE MATRIX

The key to implementing this matrix is using a team approach. Coordination between the Services, Contracting and Finance squadrons is essential to ensure they consider all aspects surrounding the decision. To set the strategic decision making process in motion, the three squadron commanders should meet to discuss the current food service operation support, existing environmental analysis, strategic direction setting, strategic implementation and strategic evaluation - outputs/outcomes. Initial assessments in these areas are important to determine location specific circumstances

that may eliminate any of the options from consideration. In addition, these assessments provide a basis for evaluating all remaining options. The decision maker may add additional members to the team to help analyze these areas. The squadron commanders may invite their deputies, or other personnel who understand the entire process well enough to fill out the matrix and provide additional input into the decision making process. A critical step in completing these assessments is to coordinate with the mission support group commander and/or wing commander. It is recommended that an initial meeting occur with the mission support group commander to get a sense of military and political constraints that may affect the process. Then, the team should conduct the analysis at the squadron level with a resulting recommendation that the services squadron commander can present to both the mission support group and wing commanders.

After these initial assessments are complete, the three squadron commanders should review the matrix. All players need to understand the criteria, the potential categories of support, the category weightings and the rating scale. If any service options will not be considered, such as closing the base dining facility, they can be deleted from the matrix.

Next, the members need to set the individual criteria weightings. This can be done through a myriad of processes. The members can simply talk through the weightings coming to a consensus on each. They could each write down their individual beliefs identifying what they think the weightings should be and then take an average of each of the members' weightings. However they determine the weightings, in the end, they need to agree. Once again, it is important to stress that the members need to consider the priorities and visions of the wing senior leadership. The wing leadership can even be involved with this step of establishing the weightings.

There are several options available to assess customer desires. The existing food service operation can calculate traditional head count statistics. This will show the number of customers and trends. The team can also compare the count to the total number of enlisted members not receiving BAS, i.e., those who the dining facility exists to support. The services squadron can develop and distribute a survey to assess

member's desires. One must consider the survey distribution methods so the surveys will reach the broadest number of base members. If they are just distributed at the dining facility, for example, those who never frequent the facility may never get an opportunity to provide input.

Once the team sets the weightings, the members need to determine what ratings they'll use. They could use the standard whole numbers 1-5 as proposed. They could allow for the use of fractional numbers or they could expand the rating scale to allow for greater diversity.

Once the matrix weightings and ratings are agreed upon, each member of the group will individually complete the matrix. When everyone is finished, a round table discussion should be completed to review each member's inputs and compare them among one another. To come to a final rating for each criterion under each option, one method is to use a promotion board type procedure. If there are any two members whose ratings for an individual criterion and option differ by more than one whole number, the entire group needs to hash out the final rating. Another method would be to simply calculate averages for each of the ratings. Whatever the method used, the procedure should be agreed upon before completing the individual matrices. Once the consolidated matrix is complete, the option totals will be easily identifiable at the bottom of the matrix. The option with the highest total score is the most preferred option based on the rates and weightings used.

D. GROUP DYNAMICS

When completing this entire strategic process, members of the group need to remain aware of the basic concepts of group dynamics and the phenomenon of group think. Emotions are liable to run high in this situation when the group members disagree on an issue. Understanding group dynamics and groupthink can help alleviate or manage any conflict.

Groupthink is a mode of thought whereby individuals conform to what they perceive to be the consensus of the group. Groupthink may cause the group to make bad or irrational decisions which each member might individually consider to be

unwise[44]. When discussing the individual matrix results, it would be detrimental if members who had differing outcomes succumbed to groupthink rather than collaborating, meaning they confront the issue directly and use problem solving approaches that would allow them to work out their differences for the best possible outcome.

E. CONCLUSION

Although the decision matrix seems like a simplified analysis to determine the best course of action to implement a food service operation, it must be leveraged with a thorough understanding of strategic management in its entirety. Conflicting stakeholder interests, economic objectives and political agendas force decision makers in a military environment to make trade-offs and require concerted efforts to build consensus about the organizations purpose and strategic direction. Making a decision as to what food service operation to implement is only one small facet of the system. Forethought must be given to the strategic direction that is provided in support of the organization's mission and or vision, what type of organizational design will be instituted as a result of the change in the technology of work, and how you intend to evaluate the organization in meeting its strategic objective through outputs and outcomes. The decision matrix is simply a tool to assist the decision maker in evaluating the strategic direction of the food service operation and identifying that mission changes, over the five year life of a contract, may lead to an alternative option if evaluated rather than just remaining on auto pilot.

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